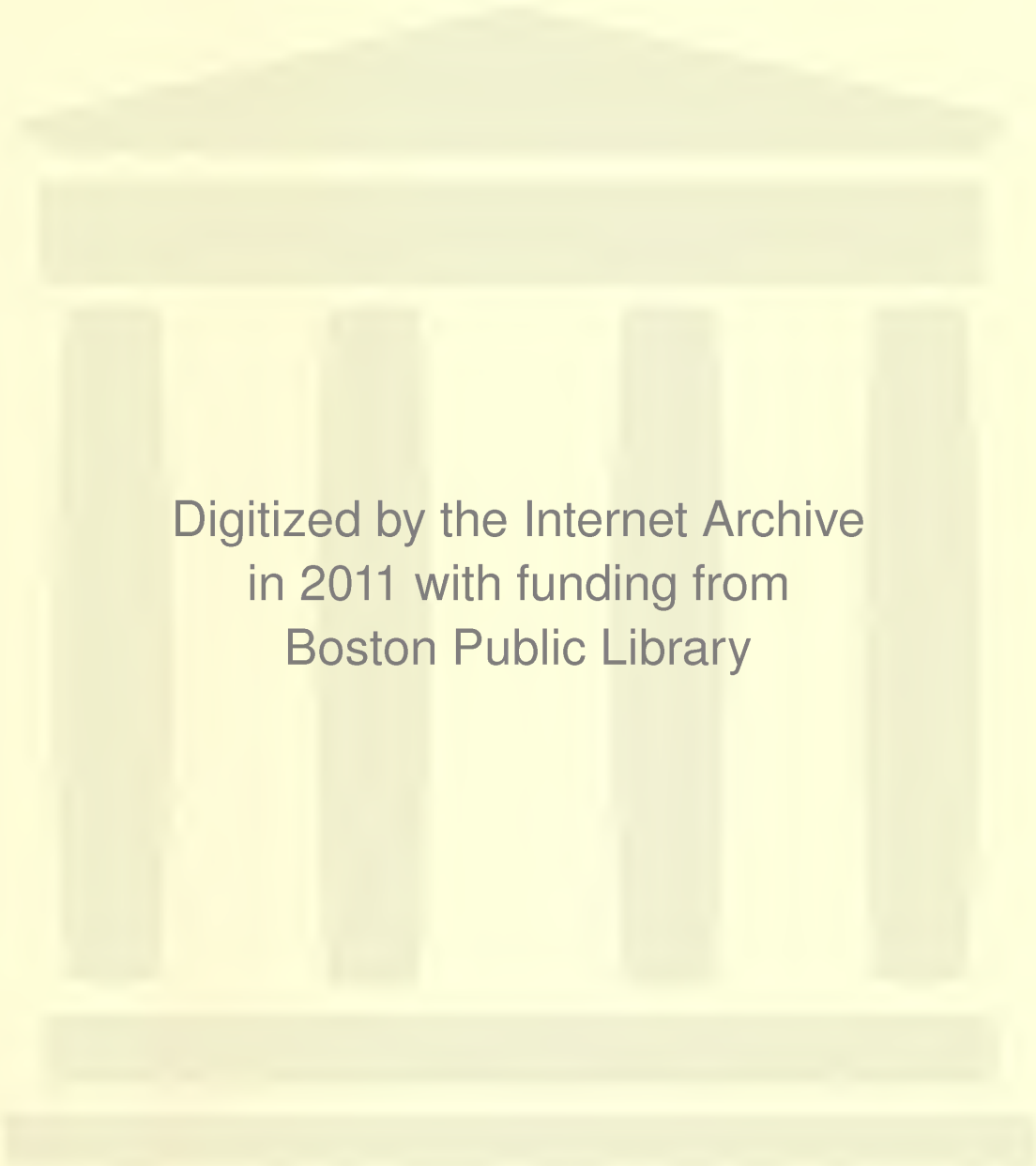

BOSTON'S HIGH SCHOOLS: PRESENT AND FUTURE

A STUDY OF HIGH SCHOOL FACILITIES IN THE CITY OF BOSTON; THEIR PRESENT ADEQUACY AND FUTURE NEEDS

VERY PRELIMINARY DRAFT

NOT FOR PUBLICATION

FOR DISCUSSION PURPOSES ONLY

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A STUDY OF HIGH SCHOOL FACILITIES IN THE CITY OF BOSTON; THEIR PRESENT ADEQUACY AND FUTURE NEEDS

as of

November, 1970

THE PUBLIC FACILITIES DEPARTMENT

CITY OF BOSTON, MASS.

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A. THE DIMENSIONS OF THE CRISIS.

The high schools of Boston are in a state of deep crisis.

Most of the schools are badly overcrowded, all of the buildings are inadequate both physically and educationally. A Boston high school at the moment is not a pleasant place in which to go to school. The high school population is growing and will continue to grow over the next ten years.

No new high schools will be available until at least 1973. For the next three years, therefore, the overcrowding will get worse day by day and year by year unless emergency measures are taken and some quite different ways of operating high schools and using high school facilities are tried out immediately and adopted quickly in a large number of schools. If parochial high schools continue to close (and this is quite likely), the overcrowding in the public schools will quickly pass any limit of acceptability.

We do not mean to imply that no one has attempted to deal with this crisis. For many years the superintendent of schools and members of the school department and most recently the city's Public Facilities Department have been working industriously trying to cope with the large array of horrendously complex problems involved in getting schools built in Boston.

Five new high schools, for instance, are presently in various stages of planning and/or design. For many years, the school system's chief structural engineer has been pleading--unsuccessfully--for funds to modernize the high schools, at least from a physical point of view. Teachers, administrators, and students have, meanwhile, had to make do with bad physical facilities, facilities that severely restrict the educational programs that can be offered. Several of the high schools have, for these physical reasons, been in severe danger of losing their accreditation. If the overcrowding is allowed to get worse and if nothing is done to modernize the facilities, many more high schools will be found to be educationally unacceptable.

After an extensive examination of the high school facilities problem, we have come to the conclusion that the situation is much worse than most people have imagined or expected it to be in 1970.

According to the Boston Redevelopment Authority's cautious projections, the grade 9-12 enrollment in the schools will rise to 28,700 by 1980 (compared to 23,000 now). An enrollment rise of this magnitude has, we feel, not been contemplated or planned for by anyone in Boston.

The five new high schools, to use the instance again, are scheduled to be in operation by 1975. If these five

schools are built on schedule and:

--if the schools scheduled to be abandoned and/or replaced by these new schools actually are done away with (as they should certainly be);

--if the modernization of the remaining 12 high schools is accomplished and their present capacities are therefore reduced (as they certainly should be);

--if the ninth grades are moved into the high schools in order to establish the 5-3-4 system and to relieve the crowded middle school problem (and certainly this has to be done);

--if all of these things are done by 1975, the high school system will still be overcrowded by about 600 students. We are assuming that the approximately 1220 7th and 8th graders now in the Latin Schools will remain there. By 1980, due to school population gains and the closing of additional old schools, the system will need seats for an additional 5,060 students, thus raising the overcrowding to around 5,660. The reader's attention is directed to Chart II H, which is in 4 pages, and which describes the sequence of events between 1970 and 1980--i.e., what schools will close and what new schools will open. However, we should point out that our figure of 5,660 seats needed in 1980 assumes the construction of a 2,500 student Southwest Central High School. This was not one of the assumptions we made in compiling Chart II H.

There is, in our view, no reason to assume that the five new high schools will be ready for use in 1975. Of the five, only Avenue Louis Pasteur (English High or Girl's Latin), the first half of the Secondary Education Complex at Madison Park, and Southwest Central appear to have a realistic chance of being available by that date. Charlestown High has site difficulties. The Occupational Resource Center has both site and program difficulties. The second phase of the SEC (Secondary Education Complex) cannot be implemented until the problem of relocating existing on-site businesses is resolved. The SEC was first proposed eight years ago in the Sargent Report of 1962.

The Public Facilities Department exists now and did not exist in the early 1960's. There is, therefore, hope that site and programmatic problems can be solved in the future much more rapidly than they have in the past. But many of these problems are not amenable to quick or easy solution. It would simply not be prudent to count on those new high schools being ready in 1975.

The BRA's enrollment projections include an estimate--based on an analysis of the years 1965-1968--of 850 students a year coming into the public education system from the parochial high schools. In the 1969-70 school year, there were 8,900 Boston students enrolled in parochial high schools located in Greater Boston.

If a pessimistic view (or a realistic one, some might say) is taken, the assumption has to be made that by 1980 all of those 8,900 students will be in the public system. This means that by 1980, the public high school system could be overcrowded by a total of perhaps 5,660 + another 5750 students. We are assuming that there might be 3,150 usable seats in parochial high school buildings in sufficiently good condition to warrant being taken over permanently as public high schools. (See Section IV of this report.)

Some of the more important dimensions of the high school crisis, then, are these, in quick summary:

1. Most of the high schools of Boston are badly overcrowded. Several of them--South Boston, Dorchester, Hyde Park, Roslindale--are at or beyond the crisis point. In these schools, there is a real question as to whether the students can possibly receive an adequate education under existing circumstances.

2. Most of the high schools are physically inadequate and in need of extensive repairs and modernization. All of the schools are deficient in some respect in facilities needed for a good conventional educational program--libraries, physical education, art, music and drama, science laboratories, cafeterias, etc. Again, the question of an adequate education arises.

3. Due to the growth of the high school population (even assuming the ninth grades stay where they are), the overcrowding will get worse each year until new space becomes available. This will not happen before 1973 at the most optimistically early date. Even the addition of some new space will only make a small dent in the problem. It will not make it possible to modernize and reduce the operating capacities of the existing schools, which is perhaps the most crucial single factor in the entire problem.

4. It is reasonable to expect an acceleration in the closing of parochial high schools. This will make the present situation much worse than it is now.

5. Therefore, the prospect for the high schools in this city at least over the next five years, is exceedingly bleak. If, however, we turn to the financial picture and examine the impact of new school facilities on the city's fiscal future, the prospect begins to look even more dismal.

B. FISCAL IMPLICATIONS OF BUILDING NEW HIGH SCHOOLS.

1. Cost of New Schools Already Approved.

The five high schools already approved by the State Board of Education under the Racial Balance Law are the SEC (5,000 students), Charlestown (1,000), a building on Avenue Louis Pasteur (English High or Girls Latin--2,000 students), Southwest Central (2,500), and the Occupational Resource Center (about 3,000 students, minus the two trade schools)--or a total of about 13,500 new seats. Subtracting schools to be replaced by these new schools gives a net addition to the system's capacity of about 8,000 seats.

These 13,500 new seats are estimated in the city's capital improvement plan to cost $104,000,000 (at approximately $7,700 per seat or student).

2. The Cost of Modernizing Old Schools.

In order to modernize the 12 high schools scheduled to be retained and to make them adequate for a contemporary, educational program (adequate, not first class), a minimum expenditure of $15,000,000 will be required.

It should be noted that there is, in almost all cases, no land for additions at these schools. This means that, in order to modernize the 12 schools, their

working capacities will have to be substantially reduced--from a current enrollment of 16,504 to 12,630, or by about 4,000 students. This is a major factor in the need for new space to house these students.

3. The Cost of Additional New Schools to House Growing Enrollment to 1980.

By 1980, the 9-12 population in the schools will, according to BRA projections, be 28,700. The 7th and 8th graders at the Latin Schools increase this figure to about 29,960. Present plans for new facilities and modernized old facilities will provide a total of only 24,300 seats. This means that additional new space must some how be provided for 5,660 students. At $7,700 per student (a low figure which does not take inflation of construction costs into account), this space will cost a conservative $43,600,000. This estimate assumes that the parochial high school system will shrink, but will not disappear entirely.

4. Cost of Elementary and Middle Schools Already Approved.

In addition to the $104,000,000 for new high schools already approved by the State Board of Education, an additional $191,300,000 has been approved for new elementary and middle schools. This, of course, does not by

any means meet the need for the replacement--or at least the modernization--of Boston's aging elementary and middle school plant. The $191,300,000 worth of approved schools are only the schools that have been authorized by the State Board as either promoting or at least not hindering racial balance. ("Authorization" by the State Board does not mean automatically that the city of Boston has committed itself or can commit itself actually to build the schools.)

5. Facilities to be Proposed as Part of the Boston Model Cities Partnership School Program.

One peculiarity of the Racial Balance Law in Boston has been that it effectively prevents building new elementary and middle schools in the predominantly black Model Cities area. State aid to construction is available only to schools that will aid--or at least not impede--racial balancing without forced bussing, which the predominantly black Model Cities area schools are unable to do. The $191,300,000 worth of approved elementary and middle schools does not, therefore, include any money for new or rehabilitated schools in Boston's predominantly black neighborhoods.

A joint proposal called the Partnership School Program has been made by the Boston School Department and the

Boston Model Cities Administration and has been accepted by the State Board, in principle, as complying with the law. The plan involves black and white children spending 60% of their time in integrated resource centers scattered throughout the city. The resource centers would be attached to cultural and educational institutions such as the Children's Museum, the Museum of Science, and the Elma Lewis School of Fine Arts. As part of the program, new home base schools would be built in black areas, central resource centers would be created, and possibly some new home base schools in white areas would be built.

A three-year demonstration of the Partnership School concept is presently scheduled to begin in the fall of 1971. If it is successful and proves an effective way to achieve voluntary racial integration in elementary and middle schools, then it would be reasonable to assume that at least some portion of the Partnership School building plan would take precedence over the program already approved for new elementary and middle schools. This does not mean that the $191,300,000 already approved would no longer be needed, since all of those schools are still needed and will have to be provided eventually.

Although no final facilities plans for the Partnership School Program have been drawn or approved, an educated guess of the cost of facilities for this program would be $45,000,000 (the equivalent of 9 schools of 1,000 students, at $5,000 per student).

6. Total Projected School Building Expenditures Over the Next 10 Years.

The sum total of these school building commitments is $398,900,000 or, even without assuming continued inflation, about $400,000,000.

It is almost impossible to make any sound projection for the next 10 years as to what this school building program would do to Boston's tax rate. There are too many other imponderable city construction needs--hospitals, police and fire stations, health units, etc.--and too many other factors involved in predicting an eventual tax rate.

A $400,000,000 school building program bonded over a ten year period would increase the present Boston debt per person by over 100% (from $280 per person in 1970 to $564 per person in 1980). It is important to remember that this debt increase would be incurred from building schools alone; it does not include other possible debt

increases for hospitals, health and day care centers, or other municipal buildings. Nor does it include the costs of equipment, operations, and staff for the new schools.

State aid to construction of about $200,000,000 would be provided to build these schools. However, once the 6% interest rate on bonds (which the State does not pay) is added in, the total cost of the $400,000,000 worth of schools rises to $652,000,000 over thirty years. If we subtract the State's contribution of $200,000,000, which ends up being only 31% of the total cost, the eventual cost to Boston over the thirty years necessary to pay off the debt would be about $452,000,000. (As Massachusetts taxpayers, Boston taxpayers will also pay a part of the $200,000,000 contributed by the State. We have not added in the effects of this cost.) The yearly Boston tax levy would have to rise by 39% between 1970 and 1980 to pay off this debt (from $25,997,831 to $ 36,138,573).

7. Additional Increases in Educational Costs Not Attributable to Construction.

It should be remembered in considering these cost figures that we have been talking only about construction costs for new or modernized facilities. We are not talking

about operating costs, which are largely determined by the number of students, the number of teachers needed and the richness and variety of the program offered to students, exclusive of facilities.

If the BRA's projection of a total 9-12 enrollment of 28,700 students (compared to 23,000 now) holds true, the cost of educating Boston's high school population is going to rise substantially, no matter what is done about facilities.

8. Fiscal Feasibility of School Building Program.

Whether Boston and its taxpayers can afford to spend $400,000,000 for schools we are not competent to say. Our suspicion is, however, that such a financial burden would be beyond the resources of any community to support over a ten year period, much less a community in the financial condition Boston is in.

Or, at the very least, we do not feel that it would be either rational or responsible to recommend that Boston's taxpayers assume such a burden.

As we said earlier, the outlook for Boston's high schools is not a happy one. To say that the outlook is dismal, however, doesn't solve the problem. Boston's high school students still need to be educated, and they deserve

not a make-shift or even just a passable education, but a first-rate one.

Fortunately, the question does not have to be framed as a choice between spending exorbitant amounts of money for new schools or continuing to provide schooling in antiquated and inadequate buildings jammed to the rooftops.

There are alternatives. There are alternatives, that is, if we are willing to challenge some of the assumptions by which conventional high schools are designed and operated. We are not here talking about "double sessions" or any of the horrors associated with that approach. The alternatives we put forward here are, in most cases, designed also to improve the education offered.

In suggesting some alternatives, no one--not EPA or PFD or BRA--is attempting to usurp the authority or prerogatives of the Boston School Committee or the Boston School Department. These possible alternatives are presented solely for the purpose of consideration and discussion by the proper authorities. All of these alternatives have been discussed with the school system's Educational Planning Center and other members of the school department's administration, including Superintendent William H. Ohrenberger. Nothing offered here either has--or is intended to imply--the approval of EPC or any other segment of the school department at this time.

C. EDUCATIONAL ASSUMPTIONS UNDERLYING A CONVENTIONAL SCHOOL CONSTRUCTION PROGRAM.

The necessity for new high school seats and for the extensive modernization program is created (in large measure) by the following educational assumptions:

1. That high school students can be best (most efficiently, most economically) educated within the confines of a facility expressly designed and constructed for that purpose. Indeed, "education" is most often defined in terms of what happens inside a school building.
2. That high school students can best be educated between the hours of 8 A.M. and 3 P.M., plus or minus one hour.
3. That high school students are best educated if a complete program is provided during the six hour school day within the school facility.
4. That this complete program is best provided by dividing the school day into periods, each period with an assigned purpose--five periods of English per week, etc.
5. That high school students are best educated between September 1 of any given year and June 30 of the next year.

The clear result of only these five assumptions is the conventional school building as we know it in Boston at the present. This type of facility has the following characteristics:

1. It is, or should be, large enough to contain--all at the same time--the total number of students, teachers, custodial staff (and their associated equipment) which the school is designed to handle. If the school's "capacity" is to be 2,000 students (plus staff, etc.), then there must be sufficient space and facilities provided so that each student and teacher always has adequate space to teach or study in.
2. It has, ideally, all of the facilities that make up a complete six hour, five day a week program for all students--classrooms, laboratories, gyms, cafeterias, art rooms, an auditorium, playing fields, etc. If the city cannot afford--or there is no space for--a high-speed, modern computer, the students do not learn about high-speed, modern computers, except out of a book.
3. It is used for purposes of educating high school students only about 6 hours out of a possible 14 hour day (8 A.M. to 10 P.M.).

4. It is officially used for only 180 days out of a 300 day year, (excluding Sundays and legal holidays).
5. It is thus used only about 30% of the total available time during the year (6 hours a day for 180 days as against 14 hours a day for 300 days).

The official "capacities" of Boston's existing secondary schools are all based on the foregoing assumptions. The new schools proposed, under present plans, are also designed according to these assumptions. If we assume that the new buildings will be climate-controlled, then the fact that schools do not now operate in summer becomes an even more crucial factor.

There is as yet no hard, scientific evidence to support anyone's assumptions about the "best" way to educate high school students. The above assumptions are based on traditional experience, the growth of a series of rules-of-thumb about how best to educate high school students.

All of the assumptions have of late been undergoing a searching re-examination not only by teachers and parents but most especially by students themselves. "Student unrest" is, in large measure, an attempt by students to express their mounting dissatisfaction with these particular rules-of-thumb garnered from traditional experience. It may well

be that traditional experience, as the students maintain, is no longer "relevant" to education in this day and age.

In any case, three clear reasons make it advisable for the city of Boston, its School Committee, and its School Department to consider alternative possibilities to the conventional high school:

1. The lack of money for building new space.
2. The immediate need for secondary space to relieve overcrowding, a need which will not wait for new facilities.
3. The need to reduce capacities temporarily to make modernization possible.

We are not, of course, saying that all of the alternatives listed below are fully tested and proved and should immediately be put into effect. Each has or is being tested in some part of the United States (including Boston). Each is worthy of being tried out in Boston, if only on an experimental basis. Our only recommendation is that such experimentation be carried out immediately.

II.

ALTERNATIVES TO PRESENT OVERCROWDING AND TO THE BUILDING OF CONVENTIONAL AND THEREFORE COSTLY NEW SCHOOLS

There is no single quick or easy answer to the twin problems of rising cost of new school facilities and the gross overcrowding of Boston's existing high schools. If any major step is going to be made towards solving these problems, that step is going to have to be made up of a combination of many different approaches. Each of the educational assumptions listed above has to be re-examined, each may have to be altered to some degree under pressure from Boston's urban realities.

We should make one thing clear before we start: we are not against the building of new facilities for educational purposes. The point of presenting alternatives to our present procedures is to reduce, by whatever means possible, the cost of new facilities, not to eliminate them. Similarly, we are interested in making sure that every educational facility is fully utilized, i.e., that the city is getting its full value out of the facilities we do have and are planning to have.

For these reasons, we have divided our alternatives into five categories:

1. Alternatives that are essentially more economical ways of building those new facilities that obviously have to be built.
2. Alternatives that involve the creation of small high school annexes or new small schools (either

in converted buildings or in new small buildings) using available small sites or untaxed water space.

3. Alternatives involving the creation of centers serving all students in the city.
4. Alternatives that involve the greater utilization of existing high school facilities.
5. Alternatives involving the use of non-school facilities for educational purposes.

A. MORE ECONOMICAL WAYS OF BUILDING NEW SCHOOLS.

There are at least two major ways of reducing the cost of a new school facility: one is to make it help to pay for itself; the other is to create a way of radically reducing the cost of constructing it.

1. Making Schools Help Pay for Themselves.

The basic reason, of course, why traditional school buildings cost so much is that public schools do not pay taxes. Whatever land is used for a school is either removed from the city's tax base (if it was ever privately owned) or it has never been considered a part of the tax base at all.

If a city is land and tax rich, this tends to make little difference. If a city is land and tax poor, which is Boston's case and the case of most cities, it can make

a great deal of difference. Although the amount of land now devoted to all public schools in Boston totals only about 275 acres, this amount of land could produce considerable income if it were put to commercial purposes.

The solution to this dilemma is the concept of joint occupancy, or the joint utilization of land and air space by a school and income-producing private enterprise such as housing, retail stores, or office space. In most cases the result of joint occupancy is a single structure or complex made up of several different but interconnected parts, each part performing its separate function but all jointly designed, constructed, and operated. The ideal plan here is to make the tax income to the city from the commercial space sufficient to carry the debt service on the school. The school in this sense "pays for itself" since the debt service is carried by an expanded tax base.

Boston has been one of the country's leaders in this field, although only one of this city's joint occupancy projects actually appears to be about to happen. This is the Quincy School Complex in the South Cove Urban Renewal Area, a joint project with the New England Medical Center.

This complex includes an 800 pupil elementary school, married student housing for the Medical Center,

recreation facilities, a Little City Hall, parking and some retail space. It occupies only 2.2 acres of expensive Boston land.

An even more ambitious but less-likely-to-happen proposal is the Secondary Education Complex at Madison Park, a plan that includes the 5,000 student Campus High School, community and social facilities and commercial space all organized around a major pedestrian concourse or street. One half of the school (for 2,500 students) is underway, but no substantial progress has been made on the complex as a whole, especially on the inclusion of income-producing commercial space.

Given Boston's headstart on joint occupancy planning, there is every reason to believe that this concept could be a major instrument in paying for new schools.

So far as high schools are concerned, there are three schools still in various stages of early planning--Charlestown, Southwest Central and the Occupational Resource Center. Plans for these schools should not be finalized until the possibility of joint occupancy has been fully explored.

Indeed, no school should be built in Boston from now on unless and until joint occupancy has been considered and, if at all possible, made a part of the plan.

Joint occupancies have had a difficult time so far in Boston largely because they require the amalgamation of interests--private business and public agencies--that are not in the habit of working together. The idea that a private enterprise and a public enterprise such as a school could inhabit the same structure is not one that comes immediately to everyone's mind.

What is needed here, in the specific case of Boston, is a Mayor's Task Force on Joint Occupancy Development, made up of relevant public officials, school department personnel, the Chamber of Commerce, business and real estate people, legal experts, and concerned private citizens. This task force would explore and recommend joint occupancy possibilities and also help to build the idea into everyone's thinking.

It is out of a task force or committee such as this that a further recommendation might come:

-- That no office building, commercial development or private housing project within the city could in the future be built unless school space is included--or at least until the feasibility of such a joint occupancy has been explored and rejected for very good reasons.

The most logical ultimate answer here is a state authority modeled on the New York City Educational Con-

struction Fund. Such an authority would have the power to join with any city or town in the state to explore, design and construct joint occupancy school facilities. The authority should be empowered to issue bonds to share in the cost of planning and constructing of such facilities. It would be empowered specifically to develop joint occupancy packages financed partly by its own bonds, partly by local bonds, and partly by commercial investors. The state and local bonds would be paid off by the income produced from the commercial ventures. After the bonds have been paid off, all further revenue would accrue to the local town or city.

If people are really worried about how to finance school construction, here is one idea some astute politician might espouse to everyone's benefit.

2. Reducing the Cost of Constructing Schools.

There is only one way, short of drastically reducing the quality of a school, in which the actual construction cost can be reduced (as opposed to reducing the total cost to the taxpayer through joint occupancy).

This is through the further development and much greater use of an industrialized construction system, the use of building components produced in a factory and assembled on a building site.

It should be stressed immediately that a system is not a building. We are not here talking about cheap, pre-fab buildings or stock plans endlessly and mindlessly repeated. In a true system, the industrialized components are simply building blocks that can be put together in an almost endless series of varying combinations depending upon the desires of the educators and the design instincts of the architect.

Perhaps the best and most simple example of an industrialized component is the ordinary brick, pre-fabricated in a factory and brought to the site to be put together in any number of different ways. The kind of system we are talking about here is far more sophisticated than a brick. It involves many different kinds of exterior and interior walls as well as floors, ceilings, roofs, heating, lighting, cooling and ventilating systems, supporting elements, beams, columns, etc., all of which are available to the architect to use as he sees fit and as the educational program of a school dictates.

Several first generation school building systems already exist--the SCSD system developed with support from Educational Facilities Laboratories and a further development of SCSD now in use in Toronto, for instance.

The virtues of a good system are many. A system can cut construction time in half. Industrialized components,

while they are still expensive because the market is not yet big enough to allow true mass production, will eventually become much cheaper.

Even so, system buildings now come in anywhere from 20 to 30 percent less expensive than conventional construction. And, of course, the buildings are available much more quickly.

Again, Boston is a leader in this field. A second generation building system is now being developed with EFL assistance by the Public Facilities Department. Two prototype system buildings--the Grover Cleveland addition in Dorchester and the Agassiz School in Jamaica Plain--are currently out to bid. Predictions are that these buildings will be 25 percent cheaper than conventional construction.

Two schools, however, do not a system make. In order to convince industry to tool up and produce cheaper components and thus further reduce the cost, a fairly large number of schools need to be committed to a system program. Boston has not yet been able to do this, but it should be done as quickly as possible.

Again, the best--or a much better--solution to the problem of developing an effective system for radically reducing the cost of schools is for the Commonwealth of Massachusetts to do the job on a state-wide basis for

the benefit of every city and town. The state could guarantee a large enough market to make it worth industry's while to produce inexpensive components.

The development of such a system could well be another job handed to the state authority for joint occupancy development, thus creating a Massachusetts Educational Facilities Development Authority. If this was done, school construction in Massachusetts might once again become possible.

Until that political millenium arrives, however, it would be advisable for Boston to proceed as vigorously as possible with the development of its own system. Even if Boston cannot afford to build all of its $400,000,000 plus worth of schools, the cost of those it must build would be considerably reduced if a first-class system was available.

B. ALTERNATIVES INVOLVING THE CREATION OF SMALLER ANNEXES OR SMALL NEW SCHOOLS ON SMALLER PIECES OF AVAILABLE LAND, IN CONVERTED BUILDINGS OR USING UNTAXED WATER SPACE.

There are four ideas intertwined here, all of which question the assumption that a high school must be large and offer a "complete" program within its own four walls.

Large conventional high schools with their associated playing fields require--or should have--large sites. It has been generally thought, for instance, that the 35 acre site allotted to the 5,000 student Secondary Education Complex at Madison Park is far too small for a school that large. There are, however, very few large sites left in the city of Boston. Most of these sites have major problems--difficult topography, distance from major transportation routes, too far removed from where the students are, etc. Many of these sites are also being looked at as possible places for tax producing, private housing or commercial development. If a large site has to be assembled or acquired by eminent domain, of course, this usually involves the taking of people's homes and the pains of relocation and neighborhood disturbance.

1. Small Sites.

There are, however, smaller pieces of land scattered throughout the city, ranging from one to six acres, many of them owned by the city or being taken over by the city for non-payment of taxes. Many of these small pieces of land are near existing overcrowded high schools such as Hyde Park, Dorchester, and South Boston.

2. Available Buildings.

In addition to available pieces of land, there are often buildings either available or in a position to be acquired and converted to school purposes.

Boston has a venerable history of converting buildings. The recent refurbishing of the L Street Bathhouse as an annex to South Boston High is probably the most dramatic example. This "new" school facility is designed to handle 500 (crowded) students, in 88,000 square feet of modernized space at a cost of about $1,000,000. The 500 students are all ninth graders. The "annex" is essentially being run as a separate school for those students. They have their own eating and physical education spaces, for instance.

A second dramatic example of conversion is the city's purchase of the Bryant and Stratton building on Newbury Street. This has now opened as the Copley Square High

School, a 4 year, 300 student experimental high school and the secondary school part of Boston's Model Demonstration Sub-system. This will, eventually, become a "downtown" school, with students using the surrounding city as both campus and curriculum. One part of this experiment will be to see if the building's capacity of roughly 300 can be drastically increased due to the fact that many of the students can be out of the building during the school day. If this concept can be proved, a great step will have been taken towards solving the school space crisis. (See alternatives under D.)

Even though the Copley Square School has just opened and is experimental, there will be no difficulty in raising the enrollment if the "capacity" can be raised. There is already a waiting list of close to 200 students. The creation of the Copley Square School has, in addition, enabled Dorchester High School to take over the nearby Pierce building and create there an annex similar to the bathhouse annex at South Boston.

These two examples demonstrate the feasibility of establishing annexes to existing high schools and also the feasibility of establishing completely new small schools.

There are advantages and disadvantages in such smaller schools. The theory has been that schools should be of

at least a certain size (about 2,000) in order to provide a complete program and to justify the costs of elaborate facilities such as physical education, industrial arts, home economics, performing and graphic arts, music, cafeterias, well-equipped libraries, etc. Indeed, the SEC at Madison Park is planned to be the epitome of such a school, offering a wide range of opportunities and first-class facilities to an enrollment of 5,000 students. There are, however, safeguards deliberately built into the SEC against the dangers of students being overwhelmed by the sheer size and complexity of a school that large. The entire student body of the SEC is broken down into basic resource units or small schools of 250 students and their associated teachers, guidance counselors, etc. The SEC resource units are, therefore, an attempt to obtain simultaneously the benefits of a small school within a much larger school.

Clearly, there <u>are</u> benefits to be obtained from small schools--the closeness and familiarity of students and teachers, the greater degree of flexibility in curriculum and teaching methods possible if students and teachers are not locked into a mammoth master schedule over which they have little control, to name two benefits. It is also easier for experiments to be tried and for arrangements to be made for the use of facilities and educational

opportunities outside the school. Each such school also has a chance to develop a distinctive character and purpose of its own and to attract students who want a particular kind of school. Again, small schools can offer a range of options that large schools find it difficult to provide. Small schools cannot, of course, offer the full range of facilities. It could be argued, however, that in many cases and for many students the "full range of facilities" is not as important as the availability of an appropriate and more intimate educational process.

Again, the best approach here is not the forcing of an arbitrary decision between small schools and big schools but the provision of as many options as possible for Boston's high school students and teachers.

A small sample of buildings and locations which might be put to this kind of use:

a. Buildings.

1.) The Hyde Park Municipal Building (as an annex to Hyde Park High School)

2.) The Roslindale Municipal Building (for Roslindale High)

3.) The building above the Auditorium rapid transit stop at Mass. Ave. and Newbury Street.

b. Available pieces of land.

(to be identified)

3. Acquiring Existing School Facilities.

A third category exists and should by no means be neglected, although we can find only one example at the present time. This is the possible acquisition of Catholic parochial high school buildings if and when such schools move but do not close.

If a Catholic high school closes, of course, and its students are simply added to the public school enrollment, there will probably be a net loss of space to the public system even if the city acquires the building. This is because the class size at most Catholic high schools is considerably above the class size at public high schools. The necessary modernization of the Catholic school building combined with lower class size would almost inevitably mean that the school would enroll far fewer public school students than Catholic school students. There would thus be further pressure of the available public school space and thus much greater overcrowding.

If a Catholic school moves to another location, however, and its facilities are sound enough to be worthy of acquisition, then it would make great sense for the city to acquire them.

The case we have in mind is Boston College High School on Morrissey Boulevard, ideally located to relieve overcrowding at South Boston and Dorchester High Schools.

The capacity of the school is about 1,300 students. The site of the school is large enough to permit additional facilities to be built. It is everyone's understanding that B. C. High wishes to move and sell its land and buildings. There is no certainty about this, but it seems to be the case.

There is another major difficulty about this idea which could well turn out to be a major opportunity for all concerned. The University of Massachusetts at Boston has by legislative decree first rights to the acquisition of B. C. High as a part of its new Columbia Point campus. Thus, if Boston wishes to acquire or use B. C. High as a public school, suitable arrangements would need to be worked out with U. Mass.

This is an opportunity of great potential value to both U. Mass. and the city. U. Mass. Boston has no school of education, but would like to get involved in education is some innovative way. The city needs B. C. High. A carefully planned amalgamation of the interests of both the city and the University could produce a unique experimental school (including perhaps a grades 11 through 14 program) that could substantially assist the secondary education and assist U. Mass. at the same time.

4. Using Untaxed Water Space.

City revenues are, at the moment, largely based on taxes levied on land and buildings. Docks and wharves are taxed, but not water.

It now appears that floating schools--ships or floating barge-like platforms--can be built more economically and much more quickly than land-based facilities.

Boston's harbor is not thriving, nor is the New England shipbuilding industry. It would be possible to find suitable unused dock space for small floating schools to be used as school annexes, small high schools, or as city-wide resource centers.

C. ALTERNATIVES INVOLVING THE CREATION OF RESOURCE CENTERS AVAILABLE TO ALL HIGH SCHOOL STUDENTS IN THE CITY.

One of the major problems that will be created by the present approach to planning high schools in Boston is the imbalance that will exist between relatively modest, old facilities (even if modernized) and shiny, new facilities in the new high schools. Even with modernization, the existing schools will not compare either in quality or quantity of facilities with the new ones.

It is our assumption that, in this sense at least, the new schools will be more attractive to students and teachers than the old ones. Many students, of course, will prefer to stay in the older schools, especially the district schools and the selective schools, even though the new schools will be able to offer many courses--music, drama, film, advanced art, etc.--that the older schools still will not be able to offer.

Boston has one quite advanced new school in the early planning stages--the Occupational Resource Center--that is a deliberate break with the established approach to planning and operating schools. Under this plan, students who wish any form of occupational training--such as is now offered in the trade schools or the cooperative industrial programs--will travel to the ORC

for such courses. The ORC will thus have no "enrollment" of its own full-time students, but will draw students (as the students themselves express a need) from all of the district high schools. (This will not, by the way, add any appreciable capacity to the high school system, since the ORC replaces the trade schools and perhaps the cooperative industrials.) Every ORC student will have a home base school in which he or she spends a large percentage of time.

The point here, of course, is that none of the home base schools could hope to provide the range of occupational options and resources that the ORC will provide. But since these resources will be concentrated in the ORC and will be available to all students in the city, the creation of the ORC gives no area of the city or any particular group of students a special advantage.

This same principle could well be applied to fields other than occupational training, fields such as the fine and performing arts, advanced science and technology (including computer and information sciences), ecology and environmental studies (including the world of water), urban studies, and so on.

Centers such as these would have a good many advantages:

1. They would make an immediate contribution to relieving overcrowding, since they would be adding to the

system's total capacity and would draw students (part-time) out of the existing overcrowded schools.

2. They would enable the city to provide unusual, extended and often inter-disciplinary curricular offerings with specialized people and equipment which no individual school could hope to offer.

3. Because the centers would not be "schools" and every student would retain a seat in a home base high school, centers would not have to have physical education facilities or playing fields, etc., and therefore could easily be located close to other facilities and people relevant to their activity. Advanced science and technology, for instance, could be located near colleges, industry or commercial establishments doing research or using large computers. The ecology and environmental studies center could be located near the waterfront. The urban studies center could be located downtown.

4. Indeed, the fact that the centers would not need many of the facilities normally associated with a school would make them ideal candidates for joint occupancies, especially in the downtown area in association with new office buildings or complexes such as the South Station development or the new Federal Reserve Complex.

5. Centers could be established as facilities that would admit students only on a racially balanced basis

(50% of the seats reserved for whites, 50% for blacks), thus helping to insure that racial balance is maintained in the high schools.

D. ALTERNATIVES THAT INVOLVE THE GREATER UTILIZATION OF EXISTING HIGH SCHOOL FACILITIES.

1. Extended School Day.

Let us examine our third assumption underlying a conventional school program--namely, that high school students can best be educated between the hours of 8 A.M. and 3 P.M., plus or minus one hour. What kinds of constraints does this place on our use of space and how can more economical educational alternatives be provided by modifying our assumptions?

High school students in Boston use their schools for only 32.5 hours out of the 70 hours available to them on an 8 A.M. to 10 P.M. basis, 5 days a week. This is a utilization rate of only 46%. Moreover, if we take into consideration Saturdays, and the fact that almost all Boston high schools close for summer vacation, then the utilization rate falls to about 30%.

We may begin to improve upon this situation by keeping high schools open and available to high school students from 8 A.M.-10 P.M., by offering high school level courses for credit during these hours, and by keeping such facilities as libraries, labs, and studios open for so long as it is practicable to do so.

Of course, such a plan assumes that students will be entering and leaving the school premises at different times, rather than all together as they do at present. It also means that students will not be required to be in school unless they are scheduled for a class. In this way, each school can undoubtedly increase its utilization rate, and that means that fewer new high school seats will have to be provided through the construction of new schools.

At present, we cannot be certain how Boston's high school students--let alone teachers and parents--would respond to a time schedule giving them such a wide latitude of choice. But it would certainly be worth making the attempt to find out, through an experimental program in at least one of the high schools. It may be that many students--and teachers--would prefer a more leisurely schedule, one which does not force them to compress their school-day activities into five or six hours.

A number of educational advantages stem from the fact that the extended school day provides the school with greater flexibility in course scheduling. To begin with, more periods and classrooms are available for scheduling required or standard courses. Also, more periods and classrooms are available for scheduling those

electives which could not be offered in the first place, due to a lack of time or space. In addition, the extended school day, because it expands the total amount of time available, may make it more convenient to plan for class meetings of varying length, as, for example, science labs or physical education periods that run for 90 minutes instead of the present 45.

Moreover, both the student who wants to accelerate his progress and the student who is interested in working part-time and going to school part-time find the extended school day offers them a much wider range of choice.

At the present time, all of Boston's high schools--with the exception of Girls High--hold adult education classes in the evening. Where seats are available and where courses quite similar or identical to those taken by high school students are offered, it would make sense to permit some students, at least, to enroll in the evening adult classes for credit. In fact, we understand that, on a few occasions, Boston students have been permitted to substitute a course in night school for one ordinarily taken during the day. There are a number of cities across the country which permit high school students to take one course per semester for credit, in adult evening classes.

In fact, none of the suggestions which we have made are original. They have been not only discussed, but carried out in a number of communities, with each community developing its own variations in order to adjust to local conditions.

For example, the high schools of Beeville, Texas, Rockford, Illinois, and DeKalb County, Georgia have combined the concept of the extended school day with the "open campus" concept--i.e., students are allowed to leave the school premises when they have no classes. According to at least one survey of this type of program at all three communities, these new concepts are working effectively in tandem. In particular, the experience has shown the school administrators who are involved that high school students can accept responsibility for their own behavior out of school as well as in school.

At Interlake High School in Bellevue, Washington, an interesting variation of the extended day concept has been used successfully since 1967. Interlake schedules major subjects for only four meetings per week, and in lieu of the fifth meeting teachers enjoy time for planning or meeting with individual students, while students are given opportunity for independent study or other activities.

Of course, a possible variation on the Interlake scheme would be to use the fifth day each week not only for various activities within the school, but also to permit some teachers and students to utilize educational opportunities outside the school. In this way, 20% of the student body would be absent from the school--engaged in educational programs elsewhere--each day. Such a concept lends itself particularly to a program which makes use of city-wide resource centers, each of which specializes in a particular discipline.

One more possible approach should be mentioned, even though it is not, strictly speaking, a variation on the extended day concept. Quite simply, we are referring to the scheduling of classes on Saturdays, a practice which could be used--if the situation demanded it--to relieve pressure on time and space during the school week. Alternatively, it is worth investigating to see if students and teachers might even prefer to attend school on Saturdays, with compensatory time out of school during the week.

2. Extended School Year Programs.

The traditionally accepted assumption that high school students are best educated between Sept. 1 of any given year and June 30 of the next year results in the use of school facilities for only 180 days out of a possible 300-day year (excluding Sundays and holidays).

Many school systems throughout the country have experimented with extended year programs with varying degrees of success. Many of these programs were adopted with the goal of cutting costs and achieving more efficient use of the school plant. Several of the more common programs will be described below, then discussed in terms of how they may achieve plant economies.

Extended year programs are of two major types:

a. Those which employ some means of rotation so that the entire student body is not using the school plant at one time, but the plant is in use for 11-12 months of the year.

b. Those which depend upon use of the summer to accelerate schooling, but where the entire enrollment attends at once, with the summer program being either voluntary or compulsory.

a. Staggered Plans.

The most common of the first type is the staggered quarter system. The school year is divided into quarters, and the school enrollment is divided into four groups, with three attending school at any one time and the fourth on vacation.

This type of system was operated in Alquippa and Ambridge, Pennsylvania in the 1930's with considerable success, while funds were unavailable for new building constructions. However, it was discontinued once funds became available. It did achieve considerable economies and greater utilization of the school plant as well as easing the burden created by increasing enrollments.

Fulton County, Georgia (metropolitan Atlanta) is currently approaching its third year of operation under a voluntary 4-quarter plan in the secondary schools. The school system first revamped its curriculum into independent quarter courses, eliminating rigid sequencing. The program began by requiring all students to attend for the first three quarters, with optional fourth quarter attendance; however, once the program is underway, it is anticipated that students may elect to attend any three of the four quarters.

A variation of the staggered quarter system is a rotational program in which students attend school for 45 days and vacation for 15 days during four repetitive 60-day intervals. Again the student enrollment is divided into four sections, each section beginning school 15 days after the preceding one, so that there are always three sections using the school plant, except for holidays totaling one month per year.

This type of program was begun during the summer of 1970 in the Valley View, Illinois, school system, with the aim of increasing the utilization of existing school buildings. Although the program is still in its infancy, it is interesting to note that among those community members surveyed for their reaction to the plan, only 1% expressed dissatisfaction with it.

b. Accelerated Plans.

Accelerated plans, including those currently in operation and those which exist only as proposals, have gone under many names: Voluntary Summer Program, Summer Enrichment Program, Voluntary Summer School Extension, Modified Summer School, Continuous School Year, Trimester and Quadrimester Plans. With minor variations, all involve the use of the school plant during part or all of the summer months on a voluntary or compulsory basis for students and teachers alike. As a rule, under these plans the length of the

school year varies from 204 to 225 days. This type of plan enables the students to do all or any of the following during the summer:

1.) attend required credit courses (acceleration)
2.) make up work missed or failed
3.) take advantage of remedial or corrective services
4.) participate in advanced learning activities either for credit or general enrichment.

In addition, at least one plan offered teachers the option either of teaching during the summer, or receiving increased earnings for participating in one of the following during the summer:

1.) planning course content in curriculum areas
2.) attending graduate summer classes
3.) analyzing specific school district problems in workshop sessions.

Another variation on this theme is the Trimester plan, which enables students to complete a year's worth of work in two trimesters of approximately 70 days each, and permits them to accelerate their programs by attending a third trimester. It thus condenses 4-6 years of schooling by one year. (By attending every trimester a student can shave 1 year off his four years of high school.)

All these accelerated plans have the virtue of decreasing the number of years a student must spend in high school, thus freeing seats and reducing the need for new construction.

Most recently the major proponent of this type of extended year has been the State of New York's Education Department, which has recently tried at least four variations of this plan in various communities within the state. We shall not attempt to describe these variations, but simply refer the reader to the reference at the end of this section.

Accelerated extended year plans have also been operated or are being operated now in Rochester, Minnesota; Hayward, California; Newark, New Jersey; Nashville, Tennessee; Jefferson County (near Louisville), Kentucky; and St. Louis, Missouri (the Francis Hovell School District).

c. Summary: Basic Advantages of Extended Year Programs.

1.) The chief advantage of the rotational scheme is that it permits school systems to make more effective use of their school plants. Specifically, the use of a four quarter system will increase the capacities of existing schools by 25%. What this means in terms of a school like the Secondary Education Complex at Madison Park, which is designed for 5,000 students (operating under a normal schedule), is that an additional 1,250 students can be accommodated, without overcrowding, double sessions, etc. A new school to house these 1,250 students would cost approximately 1250 x $7,700 per student, or $9,625,000.

Certainly there are problems connected with the operation of this kind of rotational plan. The most crucial problem involves the willingness of teachers, students, and parents to go along with it, and to accept the necessity to make the adjustments that will be required. That is to say, if the plan is to work at optimal effectiveness, students and teachers will have to be equally distributed among the four quarters of the year. Under one variation of the rotational plan, the usual two months vacation might come at odd times--for some, during the winter. Under another variation, the long vacation might be eliminated altogether, to be replaced by a number of shorter periods.

Such major scheduling changes from the present system may not, in fact, be acceptable to the vast majority. But those who reject these and similar proposals without patient examination should keep in mind that the alternatives are increased construction costs of the magnitude indicated above.

2.) The advantage of the accelerated plans--whether or not they are combined with a rotational plan--is that they permit many students to finish high school earlier than is possible under the traditional system. This helps not only the students who are interested in accelerating their progress; it also helps the school system, in that

it results--within a few years after the plan is initiated--in a reduction in enrollment, hence a net gain to capacity. Of course, the extent of the gain to capacity will depend basically upon the extent to which students show the necessary willingness and ability.

3.) Certain costs in school operation do not increase at all, or increase only slightly, if schools are kept open all year round. For instance, fixed plant charges, such as insurance, as well as investment in buildings and equipment, are unaffected by year-round use.

Similarly, according to the American Association of School Administrators, the overhead costs of administration--such as record-keeping and scheduling--will remain approximately the same whether the school is operated for nine months or twelve. Any requirement for additional administrative personnel would be considerably less than what would be needed to operate a new school.

Moreover, the year-round use of schools means that a greater number of students will make use of the same materials and equipment.

In general, then, the year-round school has the advantage of lowering per capita operational and administrative costs, and the cost of materials and equipment.

4.) We feel that the extended school year plans offer a distinct advantage to teachers and in particular to married teachers with children, since they present a much greater opportunity than is found at present for year-round teaching employment. Surely this consideration is an important one not only for teachers, many of whom work at other jobs during the summer, but also for school systems interested in utilizing teaching talent more effectively and paying teachers enough so that moonlighting becomes unnecessary. In this connection, we note that a recent Canadian study of modified school year programs in the United States found that in one system 90% of the teachers preferred year-round to nine-month employment.

5.) Finally, it must be pointed out that existing studies show no ill effects on student performance in systems using extended school year plans of one type or another. On the contrary, the evidence so far indicates an improvement in student achievement and in the holding power of the schools.

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3. Short-Term Solutions to Overcrowding.

It is clear from the preceding review that there are any number of ways in which school systems can reschedule their school days and years in order to achieve economic and/or educational benefits. However, all of them require careful thought and planning, and, what is more important, acceptance by administrators, teachers, students, and parents. After all, many of these schemes may be regarded as quite radical--but they are radical only in the sense of being markedly different from customary practice. They are not radical in the sense that they are unworkable, as the experiments carried out in a number of communities have shown us.

Consequently, it is our conviction that Boston school authorities and other involved agencies should begin now to explore these or similar schemes for more efficient utilization of school plants. This is particularly important in view of the major school building effort now under way. The projected Madison Park and Southwest high schools in particular, will be climate-controlled and will have the kinds of facilities that make extended use particularly appropriate. We strongly urge that such a study should not be limited to the administrative or mechanical aspects of school scheduling, but should also involve a fresh look

at our basic assumptions--so long unchallenged--about how schools should be run.

If, for instance, we continue to regard the custodial function as a major responsibility of our schools, then we unwittingly shut the door on many educational programs and experiences which could take place outside the school, but which would reinforce and stimulate those taking place within the school. And, of course, we deprive ourselves of some much-needed flexibility in terms of fitting an expanding student population into overcrowded school facilities.

Thinking about and planning the kinds of changes we have been discussing can be an involved and lengthy process, although a sense of urgency can speed it up. However, there are some steps that can be taken right now or in the immediate future to free up space at some of Boston's most crowded high schools.

The most obvious solution to the problem of overcrowding is to extend the school day and to use the schools between the hours of 2:30P. M. and 6:30 P. M. These are the hours during which high school facilities in Boston are utilized either only to a very limited extent, or not at all. Extensive night school programs take place in virtually all the high schools from 7:00 to 10:00 P. M.

Consequently, the schools have a maintenance force which keeps them operational from early morning continuously until 10 P. M. So the scheduling of high school classes between 2:30P. M. and 6:30 P. M. would not cause an increase in maintenance costs.

The advantages of extending the school day are many. Most important of all--in view of the immediate overcrowding problems in several high schools--an extended school day would create much needed additional classroom space.

For instance, extending a seven period school day to nine periods would provide almost a 30% increase in available space so far as scheduling is concerned. Similarly, an extension to ten periods would provide an increase of over 40%.

What we are proposing here, of course, is not new to Boston. Something of the sort was done last year at South Boston High, where some students were allowed to report late and others to leave early--the so-called "staggered" schedule. Lengthing the school day is a logical extension of this system.

However, should the school day be extended as we propose, some other changes will also be necessary. For although simply extending the school day does relieve classroom congestion, it does not by itself relieve the

school as a whole from overcrowding. What happens, in fact, is that the average student finds himself with a four or five-period schedule in a nine or ten-period day. How, then, do we provide for the student when he is not involved in his regular course work?

One alternative is to assign students to unscheduled classrooms for supervised study. However, this simply reinstates the problem of overcrowded classrooms, and in addition is likely to cause disciplinary problems. Another alternative is to use the school cafeteria for study/recreation purposes--provided it is not already in use as classroom space. But the result is likely to be a continuously overcrowded cafeteriaand an increased potential for mischief on the part of students bored by the prospect of spending two or more periods a day under such conditions. And, unfortunately, the average Boston high school library can accommodate only about 5% of the student body.

In fact, there is only one ready solution to the problem that will result in a reduction of overcrowding in the school as a whole. And that is not to require students to be in school when they are not scheduled for a class. Such a plan works most efficiently--frees up the maximum amount of space--when a student's free periods are lumped together, so that he can, for instance, go to the local public library for study, work at a part-time

job, or work at a school project which takes advantage of the city resources available outside the school.

This idea is hardly a new one, but, on the contrary, has been tried in a number of communities, including Brookline, Falmouth, Winchester, and East Longmeadow in Massachusetts. In Brookline, the plan was put into operation for educational reasons, rather than to conserve space, and it has been found that giving students with free periods the choice of leaving the building, or, alternatively, giving them the choice of using study or recreational space within the building, has greatly diminished disciplinary problems and vandalism. It has created a less tense, freer atmosphere in which teachers and students can concentrate more effectively on their work in the classroom.

In a report in the Boston Globe on October 7 of this year, Massachusetts Commissioner of Education Neil V. Sullivan, was quoted as praising the program, and suggesting that it be considered by other school systems. The Globe article also stated that an evaluation report carried out under the auspices of the Boston College Center for Field Research and Social Service generally endorsed the program.

Naturally, this kind of plan cannot be carried out without the support--or at least the acceptance--of a

majority of involved or interested parents and other citizens, many of whom are likely to react negatively, feeling that high school youngsters are too irresponsible to cope with such freedom, and that the schools' obligation to the community is custodial as well as educational.

But a major problem in contemporary high school education may be found in the fact that so much time and energy is spent by teachers and administrators in their role as disciplinarian or custodian. The system which we are suggesting should be looked into if only because its adoption might enable the school staff to focus more on their educational role. As for the concern over the behavior of students once they are released from school, it is difficult to distinguish between the kind of situation we are proposing and the normal after-school, holiday, and summer vacation freedom enjoyed by students. We tend to forget too readily that in Boston the vast majority of high school students travel to and from their schools via public transportation without incident.

Moreover, we do not argue that such a change should be made suddenly, and without proper safeguards and preparation. A considerable period of time would have to be devoted in each school to thinking about how student schedules could be arranged so that released time would in fact result in freeing up needed space. And it might

be advisable to limit the practice of releasing students to a small number of particularly trustworthy seniors to start with. Teachers, parents and other citizens must must be consulted, and a good deal of attention should be devoted to exploring ways in which the students could utilize their released time to complement what they are doing within the school. This latter idea is particularly important, because we have for too long neglected the exploration and understanding of the city of Boston as a potentially valuable component of the high school curriculum.

Additional space can be created in the high schools through another method which also involves releasing students from the school building (during what we have all come to accept routinely as normal school hours), but which does not necessarily require an extended school day.

Quite simply, this alternative method is based on our conviction that high schools should devote less time to traditional classroom instruction and permit more time for independent and small group study as well as individual teacher/student sessions.

Currently, the process of instruction in high schools consists of drills or exercises, lectures, or large group discussions (and such discussions may involve only a few students, perhaps the same students every day, out of 25 or 30). It is true that science and mathematics do require

that a good deal of time be spent on student experiments and exercises, so that our comments have somewhat less application--but are still relevant--to these disciplines than to such disciplines as English and Social Studies.

It is interesting to contrast the classroom time allocated to courses in the Humanities or Social Sciences in college with that allocated to such courses in the average high school. The college professor--who could be expected to possess a much richer fund of data on his subject than his high school counterpart--restricts the time he and his teaching assistants spend in the classroom to about one third the time the high school teacher spends in the classroom. While we might argue that high school students require more guidance and supervision than college students, there is nonetheless a limit to what the teacher can teach--and the student can absorb--within the routine of the high school classroom. And we submit that that limit has been passed in the vast majority of high school classrooms. We are asking teachers to perform miracles in demanding that they dispense knowledge--or preside over its discovery--180 days a year, to groups of 25 or 30 students, in the usual classrooms.

In actuality, of course, very few--if any--teachers possess that kind of virtuosity. What happens is that much of the classroom time is spent with all of the students

working on the same exercise, or listening to one of their number recite, or in some similar activity. Both teachers and students would be much better off if such activities could be supplanted by individualized work, or by discussion groups small enough so that all students would have a realistic chance of participating. What this suggestion presupposes is a school with lots of library or independent study space, many small seminar rooms, and convenient facilities in which the teacher can carry on the rigorous planning effort that would be demanded of him.

If, for instance, we were to require teachers and students to spend only half the time currently required in the standard English or Social Studies classroom, then we would be providing time--without changing the basic course schedule--for some alternative approaches to learning. Perhaps we would have an opportunity to do something more than just paying lip-service to the notion of individualized instruction. And we would certainly free up a great many classrooms.

Again, the overcrowding problem could be dealt with by permitting students to leave the school building, for not all individual study or even class instruction need take place within the school.

This kind of arrangement would have the advantage of giving teachers a great deal more flexibility--and responsibility--in planning their courses of instruction. The number of alternatives at their disposal would be far greater than those available within the confines of the present system. Indeed, until we give teachers the chance to experiment with this kind of freedom of action, we are not going to have an accurate idea of what can be done to enrich and enliven the educational process, both within schools and out of them.

E. USING NON-SCHOOL FACILITIES FOR EDUCATIONAL PURPOSES --THE WORLD AS CAMPUS AND CURRICULUM.

Several of the alternatives discussed above have suggested that students do not have to be "in school" all of the time and that there are many other resources in the community that can and should become an active part of high school education in Boston.

This alternative limits itself to one aspect of this general theme, the creation of special programs aimed specifically at breaking down the barriers between "school" and the rest of the world. These programs seek to get students out of the conventional school program and building and make it possible for them to use the surrounding city and metropolitan area as both the subject matter and the location of their learning.

Under this plan, students would have a home base facility, which might or might not be a conventional school building. Many, if not most, of their classes would be held out in the city--in museums, the Aquarium, the zoo, in banks and other businesses, in industrial plants and laboratories, in colleges and universities, in the State House and City Hall, in any and all places appropriate to learning how society works and what makes human beings

tick. Several cities--Philadelphia, Chicago, San Francisco, for instance--have programs such as this. The New York City Board of Education is planning such a program for the high schools of Brooklyn.

Boston has two prototypes of such schools currently in operation, one a vocationally oriented work-study program, the other an experimental high school that has just moved into the Copley Square area.

The Boston High School, the work-study program, now has 510 students who spend part of their time in vocationally based academic work and part of their time earning money on a supervised job. This program has been highly successful and has established excellent working relationships with businesses and industries in the Boston area. Its success indicates two things: 1.) that students can move about the city behaving responsibly, and 2.) that business and industry can and will respond to imaginatively conceived and soundly executed school programs.

The Copley Square School has just opened in the old Bryant and Stratton building at the corner of Dartmouth and Newbury Streets. This school, which is the high school section of Boston's experimental, model demonstration sub-system, had previously been housed in the Henry L. Pierce building in Dorchester. The new school, which presently

houses 300 students, is just getting under way and has not yet had time to become established and begin to explore the possibilities of exploiting the urban environment surrounding its new downtown location.

The theory behind both of these schools is that there is a double gain from using the urban environment as campus and curriculum:

1. The education provided can be more exciting and relevant.

2. A much smaller amount of school space is required to house--in theory--a large number of students.

If, for instance, the Copley Square School can handle 600 students in space designed for 300, there will be a considerable reduction in the need for space, or conversely the capacity of the facility has effectively been doubled.

In order to make programs such as these work, there must be a great deal of cooperation and productive interaction between the schools and business, industries, cultural and political institutions outside the schools.

What is needed here is a School-Community Council made up of school people and representatives of all of the necessary outside groups. The deliberation of such a council could produce great opportunities for students in Boston's high schools, as well as innumerable opportunities for the private sector to assist the schools and itself.

F. PLANNING AND DESIGN IMPLICATIONS OF THE ALTERNATIVES.

1. The Community Education Center.

Many--perhaps most--of the alternatives suggested in this report will require large changes in the way we operate our high schools and in the way we use our high school facilities.

But most of these alternatives also point towards or imply as well a different way of looking at schools and the educational process and a quite different approach to the way high school facilities should be planned and designed.

The traditional purpose of a high school and therefore of a high school building has been to "educate" a certain number of adolescent human beings. True, the facilities are often used for other purposes as well--adult classes in the evening, adult recreation at night and on weekends, as a meeting place for community groups. But these activities for the most part are extra. They usually have little connection with the students themselves and no connection with the high school's educational program. Indeed, most of these activities are handled by a quite separate administrative department within the school system.

Although this report has dealt largely with how to increase the operating capacities of present and future schools, it is also clear that one of the main results of many of the alternatives is a breaking down of the traditional separation of "school" from the surrounding "community," from the rest of the world.

If school buildings become joint ventures with stores, social agencies, housing or office buildings, the chance of interaction between "school" and that part of the "community" is enhanced. (It is not guaranteed, obviously, but the chances are better.)

If students are not confined all day in their school building but can be out of school for extended periods studying in libraries, governmental institutions, cultural institutions, businesses and industries, then, once again there is a much greater chance of students coming to understand the real world and of their making some productive connection with it. Education might have a chance of dealing with life as it is rather than being limited to the more abstract (but still immensely necessary) world of the printed page.

If students come to school in the evenings and engage in mixed learning with adults, the benefit to both students and adults could be enormous. Many students have little grasp of what adults do in this society and little

knowledge of how an adult society works (or doesn't work). Most adults have little knowledge of what makes young people tick or why they are so angry, turned-off, and troublesome. Joint or mixed classes might make a considerable contribution to closing the "generation gap" and reducing tensions. The "community," after all, probably needs educating as much as the students.

If some or all of these alternatives are tried out in Boston, the city will be developing a truly "cooperative" or "collaborative" educational system. It would be a system in which every segment of society--high school students, adult students, people in business and industry, people in cultural and civic institutions, people in social and community agencies as well as administrators, teachers, and parents--gets involved in the education of young people.

This kind of collaborative model of schooling fits neatly with the other major trend in school planning and use--the community school. This development sees schools being used much more as community facilities or centers, places where people of all ages gather for learning, recreation, cultural activities, community meetings, and especially for civic and social services. A community school usually or ideally has space set aside for youth

clubs and services, for the elderly, for day care, for family assistance and welfare agencies, for employment offices, Little City Halls, for health services, public libraries and information services. The regular school recreation facilities--such as gyms and swimming pools--and the normal shops, studios, theaters, etc., are also available for community use.

Clearly, only a few of the extra community type facilities can be worked into the programs for modernizing the existing overcrowded high schools. There would simply not be enough space for more than that. All of the regular facilities would, of course, be available as they are now. The extended day and year, however, would uncrowd these facilities and would make greater community use much more feasible. There might even be enough space made available for a day care center, for instance, which could be very much a part of a high school program of child development and child care.

New high schools are quite another matter. These can certainly be planned as community schools or complexes. Boston is already planning two projects that are or could become prototypes of this kind of school. Both are also planned as joint occupancies. One is the Quincy School Complex in South Cove. The other is the Secondary Education

Complex at Madison Park. Both complexes contain recreational, social, and community services, adult education and health facilities in addition to schools. Quincy also contains housing, while the SEC is scheduled to house commercial space.

These two schools are early models of a new way of looking at schools and a new type of school facility--the community education center. This concept embodies almost everything that has been talked about in this report--extended day and year, joint occupancy, inclusion of other public functions serving a wide variety of age groups and a wide variety of community needs, the use of the community as campus and curriculum, etc.

It is our opinion that Boston, having developed two possible prototypes, should pursue the community education center concept with great energy.

2. Design Implications of Extended Use/Campus High Schools.

A word or two in the way of recapitulation is appropriate here. We have described some examples of extended day and extended year plans, as well as "open campus" plans, and we have suggested that the adoption of such concepts, or a combination of them, would result in the relief of overcrowding in Boston's high schools.

The adoption of such plans also would have important implications for the creation and design of new high school facilities in Boston. Most significant of all is the fact that it would reduce the need for new construction. But in addition it would call for new kinds of schools, with different kinds or arrangements of facilities than those found in our present high schools.

Adoption of extended use/open campus plans means that schools will stay in operation for longer periods during the day and during the year. It also means that more varied facilities will be required to accommodate new kinds of educational approaches, and that the school building as we know it will become more of a "home base," or resource center, with students spending much of their time outside the school.

The kinds of varied facilities that we see as essential could possibly occur in the standard classrooms that today

take up the bulk of the space in Boston's high schools. But the standard classroom, although quite useful for some purposes, does not lend itself readily to others. For instance, it is an awkward and uneconomic locale for small group discussions, teacher/student conferences, or independent study. Nor will it accommodate large groups brought together for the occasional lecture or performance. The truth is that it is unrealistic to expect that one can do anything with a school full of traditional classrooms other than to cluster students in the usual groups of 25-30, to be taught--and to learn--as groups. No amount of interest in small group or individualized instruction can compensate for this fact. If the schools are in fact going to promote small group discussions, then they must provide seminar spaces. If they are going to provide for individualized instruction, they must have appropriate spaces in which that kind of activity can be carried out--perhaps in a lab, perhaps in a studio, perhaps in a comfortable conference space. If they are going to provide for independent study, they must supply libraries stocked with an adequate array of materials and study space for as many students as have been programmed for independent study, plus a large number who will want to use the study facilities on an unscheduled basis.

What is required, therefore, is a variety of spaces, either designed in different sizes and configurations; or open spaces designed so they may be used or combined with others in a variety of ways.

Patterns of eating in school for students in an extended day program are going to be radically different. Some may not eat in school at all; others will require food at various times of the day. The school, then, must make available to students and teachers alike, during all hours of the school day, some kind of eating facility. It is possible that this may be provided in more than one way, e.g., a cafeteria plus a snack bar, plus food-vending machines, on or off school grounds. Not only will students have a greater option as to when and where they elect to eat lunch, but staggered attendance during the day should mean that the dining facility would not at any time be required to accommodate the same number of people as is required under the present system.

Because many students will be spending a longer day in school, there will also be a need for a variety of spaces for informal gathering, for relaxing and socializing or for active sports participation. (We are assuming that the longer school day will make available for informal, unscheduled use Physical Education facilities which would be fully scheduled during the traditional 8 A.M.-2:30 P.M.

day.) This will require both indoor and outdoor recreation space.

We should mention, too, that the longer school day will require larger and more comfortable teacher lounges. And the adoption of different approaches to teaching, with a greater degree of individualized instruction, means that spaces must be provided for teacher planning and preparation.

The implications for the use of school space under this system go beyond those discussed above in relation to kinds of spaces. Given our basic assumption that students need not be confined in one building throughout the day. There remains no reason to retain all activities and all types of spaces in one self-contained building. The school plant need not be a group of varied facilities under one roof, or even on one parcel of land, but may become a loose cluster of facilities within walking distance from one another. It is just as logical to conceive of a school building housing meeting rooms and administrative offices in one location, a warehouse about a block away which has been converted to science and art labs; and a building half a block in another direction, which has been set up as a study center.

Inherent in this discussion is the fact that rehabilitation takes on new significance. Rehabilitation of existing schools becomes as important--if not more so--than the construction of new high schools.

And we are talking not only about the rehabilitation of schools but also about the acquisition and rehabilitation of non-school buildings. In particular, this approach could be helpful where an overcrowded school stands on a site which is too small for the addition of an annex. One possibility is that nearby structures--including vacant residences--could be acquired and made over into small study centers, designed for independent work. It should be noted that Mayor White has recently requested the state Legislature to provide the same kind of state aid for rehabilitation of buildings for school purposes that is now provided for new construction.

This also has important implications for the kind of land that must be found, not only to construct additions to existing high schools, but also to build new schools altogether. Sites need not be as large for a campus extension as for a complete new building. A new school may be built on scattered but proximate sites.

The fact that students are allowed to leave the school also has bearing on the Resource Center concept, making this approach to school facilities not only more feasible but more desirable. (See Section II, C.) In effect, it offers the option of sending students to various centers for such specialized activities as the performing arts or the sciences, in which case the local school takes on

more of the character and role of a home base. Both of these kinds of facilities (resource centers/home bases) should be available all day, and available not only to high school students, but to all members of the community when they are not being used by high school students.

More important possibly than the kinds of school facilities to be made available, are those facilities which can begin to operate outside of the school plant as accessory resources in the educational scheme. The most highly developed form of this approach is discussed in connection with the Downtown School oncept. (See Section II, E.) However, the concept of using non-school resources for learning must be accepted and expanded in order for an extended day program to function optimally.

Although our basic reasons for this approach are educational, it should be pointed out that we can find relief for school overcrowding in the utilization of other public buildings. Many public institutions with some kind of educational orientation, such as libraries, museums, and even churches now stand idle during most of the day. Because there are few opportunities for students to use them during the hours of 8 A.M. and 3 P.M., these facilities are failing to serve one of their sources of greatest demand.

There are numerous kinds of facilities in the city (in local neighborhoods and in downtown Boston) that can and should be made available to students during the "school day" to enrich regular courses, or provide study and meeting space. These facilities fall into three categories according to potential type of use and ease of availability. First there are those which would be available on a non-scheduled, "walk-in" basis for students to observe or participate in the activity particular to that facility. This group would include such resources and institutions as: the City Council, the State Legislature, the Aquarium, the produce and meat market, the zoo, Arnold Arboretum.

Second would be those available only on a pre-arranged, supervised basis. These would more commonly provide students the opportunity to act in an assistant's capacity and gain course credit as a consequence. For example, arrangements could be made to have students participate in and aid the activities of various community or business organizations, day care centers, or health clinics; or students could act as aides in elementary schools, assistants to political campaigns, etc. Another resource to be considered is the movie theatre--many of which do not open to the public until 1 or 2 P.M. Could students use these for their own film programs on a super-

vised basis in the morning? For example, the Paris Cinema on Boylston Street might be used as an auditorium and learning facility for the new Copley Square School, which does not have an auditorium.

Third would be that type of facility whose virtue lies in its being available as a free space to go to--places to be used at the students' option as study centers meeting, socializing and relaxing places. The possibility exists of finding partially unused buildings near the high school which can become off campus study centers to meet this need. Many churches have a large proportion of space which is unused during most of the week; their aid in providing space should be enlisted. Next to Girls Latin School, for instance, is a Congregational Church which may have space normally used for Sunday school available during weekdays.

Moreover, once students are allowed out of the high school building during the day, one may assume that public libraries will see more use during the hours of 9 A.M. and 3 P.M. than they do now. Every effort should be made to encourage students to use especially those libraries located near a high school, to enlist the aid of staffs in welcoming students, and to encourage their use as a complement to the school library. Museums, too, are a

major resource which sit idle to a great extent during the week. Ways should be found to turn their space and collections to the benefit of high school students.

One might continue indifinitely with an enumeration of all the possibilities the city offers for an expanded kind of high school education, once we have accepted the idea that students can be trusted outside of school buildings, and that education need not and should not be confined within the walls of the high school. The important thing is that we should now let some teachers and students, together with other concerned parties, begin to plan and implement a curriculum which explores some of these possibilities.

III.

SUMMARY OF RECOMMENDATIONS

A. MORE ECONOMICAL WAYS OF BUILDING NEW SCHOOLS.

JOINT OCCUPANCY.

It is recommended that:

1. No school should be built in Boston unless joint occupancy is considered, and, if at all possible, made part of the plan.

2. Plans for Charlestown, Southwest Central, and the ORC should not be finalized until the possibility of joint occupancy is fully explored.

3. No new office building, commercial development, or private housing project be permitted in Boston unless the feasibility of including school space is explored and rejected for very good reasons.

4. A Mayor's Task Force on Joint Occupancy Development be established to explore and recommend joint occupancy possibilities.

5. A State authority, a Massachusetts Educational Facilities Development Authority, modeled on the New York City Education Construction Fund be created with the power to develop joint occupancy packages and the power to issue bonds to share in the cost of planning and constructing joint occupancy facilities.

SYSTEMS CONSTRUCTION.

It is recommended that:

1. Boston proceed with the development and application of its own school-building system.

2. The Massachusetts Educational Facilities Development Authority be given the job of developing and implementing systems construction of schools on a state-wide basis.

B. SMALL ANNEXES OR SMALL SCHOOLS ON AVAILABLE LAND, WATER, OR IN AVAILABLE BUILDINGS.

It is recommended that the following possibilities be explored in depth and specific experimental models developed:

1. The use of small pieces of city-owned land scattered throughout the city for high school annexes or small high schools.

2. The conversion of existing vacant and available buildings to school purposes (either those which are city-owned, such as the L Street Bathhouse, or those which are available for acquisition, such as the Bryant and Stratton building) and the use of these available buildings for the creation of small high schools.

3. The acquisition of existing private school facilities which have closed or are about to close.

4. The acquisition of Boston College High School, if it closes, for use as a public high school, and possibly joint use with the University of Massachusetts at Boston.

5. The use of untaxed water space for locating floating school facilities--either old ships or new, barge structures built as school facilities.

C. RESOURCE CENTERS.

It is recommended that the following possibility be explored and experimental models developed:

1. Building, instead of complete schools, resource centers modeled on the proposed ORC, which will draw students from all city high schools. These will ease overcrowding in existing schools by taking students out on a part-time basis.

D. GREATER USE OF EXISTING FACILITIES.

It is recommended that the following possibilities be put into practice immediately in selected overcrowded facilities on an experimental basis:

1. Keep the school plant open and available (to children and adults alike) from 8 A.M. to 10 P.M. Monday through Saturday.

2. Require students to be "in school" only when they have a class scheduled.

3. Enable students to take more or less than a full program as their needs require.

4. Reexamine the present system of scheduling students almost exclusively into 25 or 30-student classrooms for courses which generally run five days per week, and explore alternatives that place a greater emphasis on invididual and small group study.

5. Explore in depth the various extended year alternatives with the intention of trying one or more, including a rotational system, in the Boston high schools.

E. USE OF NON-SCHOOL FACILITIES.

It is recommended that the following possibilities continue to be explored and developed:

1. Create school programs using available city resources as locations for learning. This will result in a reduction of future school building needs and will increase the capacities of existing schools. More important, it will offer students a broad new area of learning experiences.

2. Create a school-community council made up of school people and representatives from business, industry, and cultural and political institutions to make possible opportunities for such programs.

It is further recommended:

-- That a plan for the modernization of existing schools be developed and implemented immediately.

-- That planning, including joint occupancy studies, begin immediately for the projected Southwest Central and Charlestown High Schools.

-- That the design and construction of the ORC, including the possibility of joint occupancy, proceed as quickly as possible.

IV.

THE DIMENSIONS OF THE CATHOLIC SCHOOL PROBLEM

In the initial portion of this study, the Boston Redevelopment Authority, as part of its projection of high school enrollments, predicted that between 1970-80 approximately 850 parochial high school students would transfer to Boston's public high schools each year. This figure was based on a trend observed in the late 1960's. It did not, however, take into account the possibility of the wholesale closing of parochial high schools. Hence, the BRA's figures must be regarded as very much on the conservative side.

Any serious consideration of the city's high school needs over the next decade must involve the well known fact that many of the parochial schools in the greater Boston area are in financial trouble, that some have closed, and that others are likely to close in the near future.

Unfortunately, we are in no position to make specific judgments about which schools might close, and when. Indeed, no one--including the parochial school authorities--appears able to provide such judgments. This situation stems in part from the fact that the area's parochial schools fall into three categories:

1.) private schools, those operated by a teaching order,

2.) parish schools, run by individual parishes,

3.) diocesan schools, operated by the Archdiocese of Boston.

In other words, there is no single authority exercising over-all control of the parochial schools in the city. Thus, it is difficult to make predictions about the future of these schools. However, there are some hard facts that we can point to. To begin with, in 1960-61 there were 45,858 students enrolled in Boston's parochial schools, both elementary and secondary. In 1969-70, there were 33,722, a drop of 26% from the 1960-61 figures. For high schools alone, the drop was considerably less sharp over the same period--from 11,769 to 9,974, a drop of 15%. But the trend in parochial school enrollments is quite clear.

Moreover, St. Augustine's, a girls school, closed this fall and shifted its students to Cardinal Cushing High. Blessed Sacrament is scheduled to be closed at the end of this school year. And St. Thomas Aquinas High School, which had a boys enrollment of 42 for 1969-70 has as of this fall eliminated its boys section.

In addition, we can point to some findings of the McHugh Report (1969), which indicates that many of the area's parochial schools are now poorly utilized: 25% of the schools in the Archdiocese were found to have over 100 extra seats, while only 37% of the schools examined were

teaching at full capacity. The report also indicates a stronger preference on the part of the laity for retaining the Catholic elementary school than the high school.

The "Summary" of the McHugh Report contains a statement suggesting that some parochial school buildings may have to be abandoned in light of the data set forth in the section of the report dealing with school facilities.

Even if we cannot forecast with any accuracy the closing of individual parochial schools, we can determine the magnitude of the problem that would face the Boston public school system if all or virtually all the parochial high schools were to close.

It has been argued, however, that this is not the problem it seems, because the public school system could merely take over the old Catholic school buildings as is, and continue to operate them as public high schools with essentially the same facilities and same enrollment. This is not the case, however. Some of these schools may be usable as is; some may not be usable due to such factors as poor condition and lack of proper facilities, age, low capacity, poor location, or a combination of these.

The task at hand is therefore to examine the existing parochial schools from the point of view that any or all of them may be closed, and to determine which could reasonably be used by the Boston public schools.

It should be clearly understood that our judgments regarding the adequacy of the Boston parochial schools are entirely our own. They are not based upon personal visits to the schools or discussions with parochial school personnel or students. Nor do they in any way reflect upon the quality of the education that is offered parochial school students. Instead, they are simply a rough attempt to evaluate physical facilities. And we have tried to keep a sense of proportion, in that we have not subjected the parochial schools to facilities standards superior to those that currently exist in Boston's public high schools. Our information comes primarily from the McHugh Report, but also from general observations made by private sources.

Insofar as their potential use as Boston public high schools is concerned, we have grouped the parochial high schools into the following categories:

1.) Those which we are confident could be absorbed into the public school system on a long term or permanent basis, with little or no need for rehabilitation.

2.) Those which could serve as public high schools at least temporarily, that is, until new schools could be built, or accommodation of students could be provided by other appropriate means. Some rehabilitation, however, would be required, even for temporary use. These schools

might also be used permanently, but in that case would require major rehabilitation and/or expansion, for the purpose of providing such vital facilities as gyms, cafeterias, etc.

3.) Those which would not meet the physical standards required for a conventional high school even temporarily, but which could be used for other purposes connected with high school education. Here we are referring to the suggestions we have made earlier in this report with regard to acquisition of buildings for use as resource centers, annexes to existing high schools (as components of a high school "campus"), or as study centers. Alternatively, such buildings might serve, if rehabilitated, as elementary schools.

4.) Those which would not, in our opinion, be useful acquisitions under any circumstances.

Before we submit a list of the parochial high schools, grouped in accordance with the preceding categories, a few words of explanation are appropriate.

The category to which a school is assigned reflects to a considerable degree the findings of the McHugh Report, which rated a school's adequacy in terms of the following:

Schools rated in terms of 16 major facilities categories:

1. School Site Characteristics
2. School Building (general)
3. Building Comfort (heating/ventilation)
4. Building Illumination
5. Sanitation and Water
6. Building Services
7. Classrooms
8. Auditorium
9. Gymnasium
10. Cafeteria
11. Administration
12. Health/Medical
13. Age of Structure
14. Additions
15. Specialized Classrooms
16. Enrollment/Capacity Ratio

It is especially important to point out that the report indicates whether or not a school has such vital facilities as a gymnasium, cafeteria, auditorium, etc. We felt that the absence of such facilities should serve as an important guide in bringing us to make a judgment concerning the adequacy of the school, particularly as a permanent high school.

We were similarly influenced by the capacity of the school. The capacity figures that follow, however, are our own, since the McHugh Report did not include specific capacities. Our capacity estimates are based on current enrollment, together with the ratio of enrollment to capacity which is incorporated in the McHugh Report. Of course, our figures are approximate.

Finally, the location of a school played a part in our categorizations. A number of schools which lack vital facilities were put into the third category because of their proximity to existing public high schools, or because of a location in a densely populated area, where they might be used as a resource center or study center.

CATEGORY 1. PAROCHIAL HIGH SCHOOLS WHICH COULD BE USED AS LONG TERM OR PERMANENT PUBLIC HIGH SCHOOLS:

SCHOOL	CAPACITY
a. Catholic Memorial High School (private, boys) Fairly new, in excellent condition, with a full range of facilities	1200
b. Boston College High School (private, boys) Fairly new, in excellent condition, with a full range of facilities	1300
c. Mt. St. Joseph Academy (private, girls) Good condition, full range of facilities and is located quite close to Brighton H. S.	650
CAPACITY SUBTOTAL	3150

CATEGORY 2. PAROCHIAL HIGH SCHOOLS WHICH COULD SERVE AS PUBLIC HIGH SCHOOLS TEMPORARILY, OR PERMANENTLY, WITH MAJOR REHABILITATION AND/OR MODIFICATION:

SCHOOL	CAPACITY
a. Cardinal Cushing Central High School (diocesan, girls) In fairly good condition, although general classrooms rated poorly; no auditorium or health suite	800
b. Holy Cross Cathedral High School (diocesan, coed) In fair condition, but lacks gym, auditorium, health suite	715

c. St. Clare High School — 625
(diocesan, girls)
In fairly good condition, but lacks gym and health suite; located not far from Roslindale H. S.

d. Don Bosco Technical High School — 715
(private, boys)
In fair condition. An addition, which would include a gym and swimming pool, is planned for the near future

CAPACITY SUBTOTAL — 2855

CATEGORY 3. PAROCHIAL HIGH SCHOOLS WHICH MIGHT BE USED FOR PURPOSES OTHER THAN AS A CONVENTIONAL HIGH SCHOOL:

SCHOOL	CAPACITY
a. Christopher Columbus Catholic High School (diocesan, boys) and Julie Billiart Central High School (diocesan, girls) — Very poor condition; lack gym, auditorium, and health suite; in center of North End, could be used as study center	800
b. Fitton Central High School (parish, girls) — An old building, in poor condition; lacks gymnasium	500
c. Gate of Heaven High School (parish, coed) — Old building; lacks major special facilities; within walking distance of Sough Boston H. S.	200
d. Mission High School (parish, coed) — In poor condition; no gym or cafeteria; about ½ mile from Boston Latin and English High	600

e. St. Columbkille High School 470
(parish, coed)
In fair to poor condition; no gym or cafeteria; located near Brighton H. S.

f. St. Domenic Savio High School 365
(private, boys)
In good condition; full range of facilities, but is remotely located near Winthrop line in East Boston

g. St. Gregory High School 480
(parish, girls)
In fairly good condition; no cafeteria; located within a mile of Dorchester H. S.

h. St. Thomas Aquinas High School 300
(parish, girls)
In poor condition; lacks major special facilities; located within walking distance of Jamaica Plain H.S.

CAPACITY SUBTOTAL 3715

CATEGORY 4. PAROCHIAL HIGH SCHOOLS WHICH WOULD NOT BE USEFUL TO THE PUBLIC SCHOOL SYSTEM UNDER ANY CIRCUMSTANCES.

SCHOOL	CAPACITY
a. Blessed Sacrament High School (parish, girls) This school is an integral part of a church/ elementary parochial school complex-- which would make its use as a Boston public school quite difficult. The high school will close this June.	165
b. Monsignor Ryan High School (parish, girls) Poor condition; lacks all major special facilities.	300

c. St. Patrick High School (parish, girls) Very poor condition; lacks all major special facilities	295
CAPACITY SUBTOTAL	760
CAPACITY TOTAL	10,480

CONCLUSIONS

Let us assume that the acquisition of the three schools in Category 1 would add roughly 3,150 seats to the present capacity of Boston's high schools. (This is doubtless an optimistic figure; the actual capacity of these schools, if calculated in accordance with the method we adopted in relation to the public high schools, would be considerably less.) The 1969-70 Boston parochial high school enrollment, and we are speaking only of Boston residents, totaled 8,907* (including 1095 Boston residents who attended parochial school outside of Boston). Hence, the closing of all parochial high schools in and around Boston would create a need for about 8,900 seats. Re-opening the three Category 1 schools as public high schools would still leave a need for 8,900 - 3,150 or about 5,750 seats for former parochial high school students. If we add this number to the 5,660 seats which we have already calculated will be required by 1980--quite aside from the parochial school issue--then the total number of seats required could rise to 5,660 plus 5,750 or about 10,400 seats.

Reopening the four high schools in Category 2 in addition to those in Category 1 would yield roughly another

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*5,195 girls, 3,712 boys.

2,855 seats, provided very extensive rehabilitation and/or expansion was undertaken. This would still leave a need for about 2,900 seats for former parochial high school students; and again, if we add this figure to the 5,660 seats we had previously determined would be required, our total becomes 8,560.

Realistically, we could count on utilizing the capacities of the schools included in Category 3 only if major changes occur in the ways in which high schools are organized and operated in Boston, and if rehabilitation could be carried out at a cost under that of new construction. If these conditions in fact pertained, then it is possible that the parochial high schools in Categories 1, 2, and 3 together could be converted to public high schools with a small net gain to the public high school capacity.

Again, we want to emphasize that we have not predicted the closing of any parochial high school, let alone the closing of all of those in Boston; all we have tried to do is to establish the dimensions of the problem that will arise if Boston's parochial high schools do close in large numbers over the next decade.

CHART II H *

ASSUMPTIONS REGARDING LOSSES AND ADDITIONS

TO HIGH SCHOOL CAPACITY DECADE 1970-1980

PLANNED OR PROBABLE LOSS OF HIGH SCHOOL CAPACITY:

SCHOOL	WORKING CAPACITY
ENGLISH HIGH	1300
ENGLISH HIGH ANNEX (T. ROOSEVELT)	288
CHARLESTOWN HIGH	580
BOSTON TRADE	1140
GIRLS TRADE	250
GIRLS HIGH	650
JAMAICA PLAIN HIGH	500
DORCHESTER HIGH ANNEX (PIERCE)	190
GIRLS LATIN	980
TOTAL LOSSES	5,878 SEATS

PLANNED OR PROBABLE ADDITION TO HIGH SCHOOL CAPACITY:

SCHOOL	CAPACITY	OPTIMISTIC OPENING DATE
SECONDARY EDUCATION COMPLEX (PHASE I)	2500	Sept. 1973
" " " (PHASE II)	2500	Sept. 1974
NEW ENGLISH HIGH	2000	Sept. 1973
NEW CHARLESTOWN HIGH	1000	Sept. 1973
OCCUPATIONAL RESOURCE CENTER	3000	Sept. 1974
BRYANT STRATTON BUILDING (SUBSYSTEM)	300	Sept. 1970
TOTAL ADDITIONS	11,300 SEATS	

SUBTRACTING LOSSES FROM ADDITIONS: 5,878

NET ADDITION TO CAPACITY: 5,422 SEATS

*Taken from "A Survey of the High Schools of Boston to Determine Up-To-Date Capacities, and to Indicate the Scope of the Need for New Construction," Part II of EPA's Report, "Boston's High Schools: Present and Future."

CHART II H (CONT.)

1973-74 PICTURE (OPTIMISTIC)

TOTAL SYSTEM WORKING CAPACITY We shall use this figure as our starting point. It represents the 1969-70 capacity of all high schools. (See Chart II G.)	16,378 SEATS	
To this we add:		
BRYANT STRATTON BUILDING	300	
CAPACITY UNTIL SEPT., 1973:	16,678 SEATS	
1973-74 ENROLLMENT:		24,416 STUDENTS
1973-74 ADDITIONS TO CAPACITY:		
SECONDARY EDUCATION COMPLEX (PHASE I)	2500	
NEW ENGLISH HIGH	2000	
NEW CHARLESTOWN HIGH	1000	
TOTAL ADDITIONS:	5500 SEATS	
1973-74 LOSSES TO CAPACITY:		
ENGLISH HIGH	1300	
ENGLISH HIGH ANNEX (T. ROOSEVELT)	288	
CHARLESTOWN HIGH	580	
TOTAL LOSSES:	2168 SEATS	
NET ADDITION TO CAPACITY 1973-74:	3,332 SEATS	
PLUS PRIOR CAPACITY:	16,678	
EQUALS TOTAL HIGH SCHOOL CAPACITY 1973-74:	20,010 SEATS	
EXCESS OF ENROLLMENT OVER CAPACITY:		4,406 STUDENTS

CHART II H (CONT.)

1974-75 PICTURE (OPTIMISTIC)

1974-75 ENROLLMENT:		25,992 STUDENTS
1973-74 CAPACITY:	20,010 SEATS	
1974-75 ADDITIONS TO CAPACITY:		
SECONDARY EDUCATION COMPLEX (PHASE II)	2500	
OCCUPATIONAL RESOURCE CENTER	3000	
TOTAL ADDITIONS:	5500 SEATS	
1974-75 LOSSES TO CAPACITY:		
BOSTON TRADE	1140	
GIRLS TRADE	250	
TOTAL LOSSES:	1390 SEATS	
NET ADDITION TO CAPACITY 1974-75:	4,110 SEATS	
PLUS PRIOR CAPACITY:	20,010	
EQUALS TOTAL HIGH SCHOOL CAPACITY 1974-75:	24,120 SEATS	
VERSUS ENROLLMENT 1974-75:		25,992 STUDENTS
EXCESS OF ENROLLMENT OVER CAPACITY:		1,872 STUDENTS

CHART II H (CONT.)

1980-81 PICTURE (OPTIMISTIC)

1980-81 ENROLLMENT:		28,740 STUDENTS
1974-75 CAPACITY:	24,120 SEATS	
1975-80 ADDITIONS TO CAPACITY:	NONE	
1975-80 LOSSES TO CAPACITY:		
GIRLS HIGH	650	
JAMAICA PLAIN HIGH	500	
GIRLS LATIN	980	
DORCHESTER HIGH ANNEX (PIERCE)	190	
TOTAL LOSSES:	2,320 SEATS	
1974-75 CAPACITY:	24,120 SEATS	
MINUS 1975-80 LOSSES TO CAPACITY:	2,320	
EQUALS TOTAL HIGH SCHOOL CAPACITY 1980-81:	21,800 SEATS	
VERSUS ENROLLMENT 1980-81:		28,740 STUDENTS
EXCESS OF ENROLLMENT OVER CAPACITY:		6,940 STUDENTS*

*NOTE: The previous calculations have ignored the presence of 7th and 8th graders in the two Latin Schools. If, however, we were to assume that they would still be there in 1980-81, and in about the same numbers as at present, then we must add another 1,224 to the 1980-81 enrollment figures.

EXCESS OF ENROLLMENT OVER CAPACITY COUNTING 7th AND 8th GRADERS:	6,940 1,224	
		8,164 STUDENTS

V.

THE PROBLEM OF RACIAL IMBALANCE

A. THE NATURE OF THE PROBLEM.

According to the state's Racial Imbalance Law, any Boston school in which the non-white portion of the student body exceeds 50% is imbalanced. The Law imposes upon the Boston School Committee the obligation to formulate a plan for eliminating racial imbalance in the schools.

According to the preceding definition, two of the city's high schools are racially imbalanced. Both are girls' schools located in predominantly non-white neighborhoods: Girls High and the Jeremiah E. Burke. At two other schools--Boys Trade and Jamaica Plain High--the non-white enrollment is approaching 50%.

However, there is no plan which addresses itself to the problem in the context of the existing sixteen Boston high schools. Instead, it is intended that the resolution of the racial imbalance problem should coincide with the opening of several newly constructed high schools in 1973 and after.

There is every reason to be optimistic that Boston can deal effectively with this problem. With a non-white element that constitutes only 23% of the total high school enrollment of approximately 20,000, Boston is in a much

better position to create racial balance in its high schools than are most American cities of comparable size. Moreover, Boston is a relatively small, compact city, and is equipped with one of the nation's better urban public transportation systems. It is fairly convenient to move about the city using public transportation, and, in fact, that is the way the majority of Boston high school students get to and from school. And in a large percentage of cases, their schools lie well across the city from their homes. Consequently, the "bussing" issue, which is so laden with controversy elsewhere, is not an issue here. In Boston, "bussing" is an accepted tradition.

In the light of these considerations, let us examine more closely the distribution of non-white students among the city's high schools.

In terms of the areas from which students are drawn, Boston has two kinds of high schools:

1. district high schools--comprehensive, coeducational schools, designed to serve primarily those students who reside nearest the school,

2. city-wide high schools--special purpose, single-sex schools, designed to serve students drawn from all over the city. Although none of these schools is located in the downtown area (except for the small, experimental Copley Square High School), all are closer to the center of the city than are the district high schools.

Boston's "open enrollment" policy implies that, theoretically, at least, students can attend the school of their choice. Under the right circumstances, this policy would tend to counteract racial imbalance and to a very limited extent it does so at present. However, there are several factors which tend to inhibit the effect of open enrollment as a counter-force to racial imbalance.

To begin with, each district high school, under the present arrangement, is obligated to accept all applicants residing in the district. Students from other sections of the city are accepted only if seats are available after local needs are met. But all the district high schools are located in predominantly white neighborhoods, so that they tend to serve a predominantly white clientele. As of October, 1969, (1970 figures are not yet available) five district high schools had the following percentages of non-whites in their student bodies:*

SCHOOL	PERCENTAGE NON-WHITE
Charlestown H. S.	3%
East Boston H. S.	2%
Hyde Park H. S.	8%
Roslindale H. S.	5%
South Boston H. S.	None

In terms of the Racial Imbalance Law, none of these schools is imbalanced, since none of them has a student

*These and following figures derived from the Boston School Department's Office of Statistics, October 10, 1969.

body that is over 50% non-white. It must be obvious, however, that the small percentage of non-whites attending these schools contributes to racial imbalance elsewhere.

Similarly, if we examine the three selective city-wide high schools, which require that applicants for admission pass an entrance examination, we find the following percentages of non-whites in their student bodies:

SCHOOL	PERCENTAGE NON-WHITE
Public Latin School (boys)	7%
Girls Latin School	13%
Boston Technical H. S. (boys)	11%

As of October, 1969, the above eight high schools enrolled only 14% of the city's 4549 non-white students. As may be seen from the following chart, the effect of this on the remaining high schools is apparent. Non-white students are concentrated in the three district high schools which are located in areas where substantial numbers of non-whites reside (Dorchester, Jamaica Plain, and Brighton), and in the non-selective city-wide high schools: the two trade schools, English High, Girls High, and the Jeremiah E. Burke. (We should point out that the two latter schools, located in Roxbury and North Dorchester respectively, can no longer really be considered city-wide schools, since they draw their students almost exclusively from local sources.) A substantial number of non-white students are also found in the Copley Square High School and in the Work-Study Program.

SCHOOL	PERCENTAGE NON-WHITE
Boys' Trade	47%
Brighton H. S.	33%
Dorchester H. S.	34%
English H. S.	45%
Girls' H. S.	94%
Girls' Trade	36%
Jamaica Plain H. S.	46%
Jeremiah E. Burke	64%*
Boston H. S. (Work-Study)	34%
Copley Square H. S. (Subsystem)	76%**

In general, as high schools have become imbalanced, they have lost a substantial portion of their enrollment--both white and non-white. For example, in the period 1960-1969, enrollment at Girls High fell 41%, while enrollment at the Jeremiah E. Burke fell 35%. At the same time enrollments at the district high schools in general have risen. For instance, from 1960-1969 the enrollment at Dorchester High increased 55%, while that of South Boston High increased 41%.

With the exception of the selective schools (the two Latin schools and Boston Technical), over the last decade the city-wide schools have tended to become imbalanced and underpopulated, while at the same time the district schools have become overcrowded.

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*During the course of last year the Burke lost virtually all its white enrollment.

**This figure applied to the Subsystem high school when it was located in the Pierce School in Dorchester. This fall the figure is about 50%.

B. SUGGESTED APPROACH TO REDUCTION OR ELIMINATION OF RACIAL IMBALANCE PRIOR TO CONSTRUCTION OF NEW HIGH SCHOOLS.

Because of the overcrowding problem at the district high schools, the problem cannot be resolved by adding non-white students to their enrollments, unless it is done by taking out a corresponding number of white students. Fortunately, it appears that, in fact, the latter step can be taken without doing violence to the rationale of a district high school as a neighborhood high school. The following table shows what we mean:

SCHOOL		PERCENTAGE OF NON-WHITES IN ENROLLMENT
Charlestown H. S.	Percentage of enrollment from outside Charlestown, the North End, and East Boston: 35%	3%
East Boston H. S.	Percentage of enrollment from outside East Boston: 7%	2%
Hyde Park H. S.	Percentage of enrollment from outside Hyde Park and Roslindale: 49%	8%
Roslindale H. S.	Percentage of enrollment from outside Roslindale and West Roxbury: 19%	5%
South Boston H. S.	Percentage of enrollment from outside South Boston: 42%	None

The preceding figures--which are as of October, 1969, and therefore are somewhat out of date--show that, except in the case of East Boston High, racial imbalance could be substantially reduced by providing a non-white quota of 15 or 20% at each of these schools without thereby closing out seats for local residents. We are distinguishing here between the official high school "district"--a somewhat arbitrary concept--and the actual neighborhood or area in which the school is situated. If it is necessary to shrink districts in order to achieve racial balance, we ought to do so.

Of course, non-white students may not elect to attend these schools, and we are not suggesting that their attendance in the percentages indicated above be made mandatory. But giving them first choice at available seats seems to us a modest step in the direction of compliance with the Racial Imbalance Law, and one that can be implemented next fall.

Obviously, if such a plan is to work, some provision must be made for the white students who have been displaced, without placing an additional burden on already overcrowded schools. And whatever is done ought to contain something that makes participation in the plan attractive to these displaced students, so that participation will be voluntary.

Both these requirements could be met if two schools which are now under-utilized--the Burke and Girls High--could become the sites of some innovative, coeducational programs. That this suggestion may be more than an expression of hope is indicated by the success of the Trotter School in attracting white elementary school students. Similarly, Boston Technical High School, despite its location in Roxbury, continues to attract a predominantly white student body. What these examples seem to show is that the programs a school offers are at least as important as the school's location insofar as drawing power is concerned.

As for the kinds of programs that might attract students, we have discussed some options in preceding sections of this document. In this instance, we have in mind particularly the concept of the "downtown" school, in which much of the educational process takes place outside the school, using the resources offered by various people and places throughout the city to create a new kind of curriculum.

What we want to emphasize especially is that we do not have to wait until new schools are available in order to attack the problem of racial imbalance. Although no simple or easy solutions are at hand, the problem is one that deserves some concentrated attention and planning.

C. THE EFFECT OF NEW HIGH SCHOOL CONSTRUCTION ON THE RACIAL IMBALANCE PROBLEM.

At present, five new Boston high schools are scheduled for construction over the next few years:

SCHOOL	LOCATION	NO. STUDENTS
Secondary Education Complex	Roxbury	5,000 coed
Southwest Central High	Hyde Park/ Mattapan area	at least 2,500, coed
Occupational Resource Center	Hyde Park/ Mattapan area	1,500-3,000, coed
English High or Girls Latin*	Fenway	2,000 boys, 2,000 girls, or 2,000 coed
Charlestown High	Charlestown	1,000 coed

These construction plans raise several issues in connection with racial imbalance. For one thing, the SEC will be located in a black residential area and Southwest Central in a white residential area. If we leave matters to follow their own course, we may end up with an imbalanced SEC. Therefore, the enrollment at these two schools must be planned, and not left to chance.

No decision has been made as yet with regard to the size of the student body at the ORC. According to our understanding of the current planning for this school, its students will attend only part-time, and will be permanently assigned

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*Just which school will occupy this site is still unclear.

to other "home-base" high schools. To the extent that the ORC will be a meeting-ground of students drawn from all over the city, it will contribute in a limited way to the reduction of racial imbalance.

English High has had an increasing percentage of non-white students in its enrollment over the last few years. As of October, 1969, approximately 45% of its students were non-white. The new building to be constructed behind the present English High could attract students from all over the city, thus assuring a balanced population. If, however, the new building is turned over to Girls Latin, English High may become part of the Secondary Education Complex. What effect this would have on the SEC's enrollment is uncertain.

As for Charlestown High, there are no plans at present to relieve imbalance elsewhere by assigning non-white students to this school. However, since the new Charlestown High will have a capacity of 1,000, as opposed to an October, 1969 enrollment of 860, and since the total high school population residing in Charlestown and the nearby North End is substantially under 860, some thought ought to be given to the matter. Here is an excellent opportunity to relieve imbalance.

If we consider the projected new high schools in terms of their effect on the existing schools, we can see the need for additional thought and planning. Obviously, some schools will be affected more than others. We can reasonably assume that construction of Southwest Central will directly affect enrollments at Hyde Park and Roslindale Highs; similarly, construction of the SEC will directly affect enrollments at Dorchester, Jamaica Plain (assuming it still exists), Girls, and the Jeremiah E. Burke. And the creation of attractive new schools, presumably coupled with new programs, may have a dampening effect on enrollments at the three selective high schools.

Whatever happens, it is obvious that the new schools will engender an enormous amount of change in terms of enrollment in many of the high schools in the system. Our point here is that this period of change, if properly utilized, can serve as an opportunity to eliminate racial imbalance altogether. But it will not happen automatically or fortuitously.

D. RACIAL IMBALANCE AND THE CLOSING OF PAROCHIAL HIGH SCHOOLS.

The vast majority of parochial high school students in Boston are white. If parochial high schools do close, it is important that their students not be absorbed into the public school system in large numbers without attention being paid to the racial imbalance factor.

Unfortunately, as recent events show, we probably will not have a good deal of time to prepare for such a contingency. The wide-spread closing of parochial high schools could occur suddenly and without warning. But we ought now at least to set up some guidelines, the outline of a policy, which can then be modified as actual circumstances dictate.

VI.

THE PRESENT AND FUTURE PROBLEMS OF SEXUAL EQUALITY IN BOSTON HIGH SCHOOLS

No matter what position one may take on women's rights or the woman's liberation movement, the fact remains that all forms of sexual discrimination are under heavy attack. Just as the movement towards racial equality has produced considerable, if insufficient, change in this society, the movement towards sexual equality will also produce changes.

Boston and its schools are no more immune to this problem than any other city or any other segment of American society.

The problem presents itself in both an immediate and a long-range form.

A. Separate and unequal

B. Separate but equal

A. THE IMMEDIATE PROBLEM OF SEPARATE AND UNEQUAL--GIRLS LATIN SCHOOL.

No court has yet outlawed separate but theoretically equal schools for boys and girls. Boston's immediate problem, however, is not separate but equal but a clear case of separate and unequal.

Boston Latin has a current enrollment of 2074. Girls Latin has an enrollment of 1208. There are thus considerably

fewer openings each year for girls than for boys. Candidates for both schools take the same entrance exam. When the exam was last given in March of 1970, the cut-off mark for girls was 132. For boys, it was 120. Girls, therefore, had to be better prepared academically to gain entrance to Girls Latin than boys did to gain entrance to Boston Latin.

This case is now under study by the Civil Liberties Union of Massachusetts. Without attempting to pre-judge any court action that might result, it seems difficult to justify or excuse this situation.

Further, the facilities currently provided at Girls Latin are markedly inferior to those at Boston Latin. The Girls Latin building is older, more overcrowded and makes fewer course offerings possible--there are no music rooms at Girls Latin, art classes have to be held in the cafeteria, the auditorium is not in good shape.

The Sargent Report of 1962 recommended that Girls Latin abandon its present building and move into the present English High building across the street from Boston Latin. (English High was to move into the Secondary Education Complex at Madison Park.) The School Committee, in 1967, officially accepted this recommendation. This vote has not been altered by any subsequent School Committee. It was subsequently found by the Public

Facilities Department that the present English High building was not worth rehabilitating. A new facility for 2,000 students (equipped with both boys and girls toilets) is now in final design for the English High site.

It appears to be everyone's opinion that the new facility on Avenue Louis Pasteur will be inhabited by English High School when it opens (scheduled for 1973). If this turns out not to be true and if Girls Latin moves into the building, then the separate but unequal problem is solved. (This assumes that English High would move into the first stage of the SEC at Madison Park, also scheduled to be ready in 1973.)

If English High does move into the new Avenue Louis Pasteur facility, then the Girls Latin problem remains unsolved. There are at present no plans to provide Girls Latin with a new building of any kind if it does not occupy the Avenue Louis Pasteur facility. There are three possible solutions to the Girls Latin problem:

1. To construct immediately a new conventional facility with a capacity of 2,000. Although there is some chance that this facility could be ready by 1975, it would mean adding a sixth new high school to the city's building program and a conservative $15,000,000 to the city's fiscal burden. If the new facility was included as a joint

occupancy with a downtown office building, this cost might be bearable.

2. To adopt immediately at Girls Latin some of the extended use alternatives described above. This would certainly be a possibility, but it might be difficult to institute at this school. The girls come from all over the city (including seventh graders) and the Codman Square area would probably not be considered safe by parents for girls traveling in the late afternoon or evening. The extended year might be more feasible.

3. To merge the two Latin Schools into a single co-educational school with the present girls facility used as a co-ed annex, perhaps for all seventh and eighth grade students. This option would require some renovation of the two present buildings (as well as considerable renovation of the attitudes and traditions of the two schools). It would, however, solve the problem with considerable dispatch.

B. THE LONGER RANGE PROBLEM OF SEPARATE BUT EQUAL.

Although this is not an immediate problem, it is altogether likely that a constitutional amendment will be passed before 1980 barring discrimination on the basis of sex.

If this occurs, it is also quite possible that the courts will rule that the separate but equal doctrine is as unconstitutional for women as it was for blacks. Single sex schools would thus be outlawed.

Boston has already had one case in which a girl took the examination for Technical High School. The school department ruled that if she passed the exam she could attend the school. (The girl passed the exam, enrolled this fall, but left the school voluntarily after one week.) Technical High is thus (technically) no longer restricted to boys.

There are six single sex schools in Boston (exclusive of the Trade Schools, which will be joined in the CRC):

The two Latin schools

English High

Technical High

Girls High

Jeremiah E. Burke High

It seems clear that the city and the school department might be well advised to prepare to convert all of these schools into co-educational institutions.

APPENDIX A

ENROLLMENTS AND CAPACITIES OF BOSTON HIGH SCHOOLS: EFFECT OF CURRENT PLANNING

High schools that will probably be retained	October 1, 1972 Enrollment	Adjusted or "Actual" capacity*
Brighton H.S.	1,321	1,000
Dorchester H.S.	1,607	1,600
J.E. Burke H.S.	1,053	950
East Boston H.S.	1,283	1,300
Boston Latin	1,914	1,800
Roslindale	1,503	800
South Boston H.S.	2,231	1,350 (including 400 L St. Annex)
Boston Technical H.S.	1,990	1,700
Copley Square H.S.	517	500
Hyde Park H.S.	1,614	1,100
Building occupied by Boston Business School	624	600
	15,657	12,700

*"Actual" capacity of each high school is the capacity computed by an EPA study which was submitted to the Public Facilities Department in July, 1970. It assumes the renovation of each school, including the loss of some classroom space for supporting services, such as libraries, laboratories, art or music rooms, etc.

High schools that will probably be abandoned	October 1, 1972 Enrollment
Girls H.S.	423
Girls Latin	1,190
Jamaica Plain H.S.	659
Boston Trade H.S.	755
Boston H.S. (in rented space)	636
Trade H.S. for Girls	377
Charlestown H.S.	1,038
English H.S.	1,196
	6,274

Planned construction of new high schools	Capacity
Occupational Resource Center (including the graduate Business School)	2,620
Madison Park Phase I or equivalent	2,500
Avenue Louis Pasteur School	2,500
New Charlestown High	1,000
Southwest High	1,200
Planned new capacity:	9,820
Plus "Actual" capacity of schools to be retained:	12,700
Total planned capacity:	22,520

vs. October 1, 1972 total High school enrollment: 21,931

Excess of planned capacity over 1972 enrollment: 589